

Computer Engg.

Part A :

1 Name and Address of the Institution:

SJVPM's Rasiklal M Dhariwal Institute of Technology
Pawanagar, Chinchwad, Pune

2 Name and Address of the Directorate of Technical Education:

Directorate Of Technical Education ,Maharashtra State, Mumbai

3, Mahapalika Marg, Post Box No.1967,
Opp. Metro Cinema, Mumbai – 400 001
Tel: (022) 2264 1150, 2264 1151, 2262 0601, 2269 0602
Fax: (022) 2269 2102, 2269 0007

3 Year of Establishment:

2001

4 Type of the Institution:

- | | |
|---|---|
| <input type="radio"/> University | <input type="radio"/> Autonomous |
| <input type="radio"/> Deemed University | <input type="radio"/> Any Other(Please Specify) |
| <input checked="" type="radio"/> Affiliated | |
-

5 Ownership Status:

<input type="checkbox"/> Central Government	<input type="checkbox"/> Trust
<input type="checkbox"/> State Government	<input type="checkbox"/> Society
<input type="checkbox"/> Government Aided	<input type="checkbox"/> Section 25 Company
<input checked="" type="checkbox"/> Self financing	<input type="checkbox"/> Any Other(Please Specify)

6 Other Academic Institutions of the Trust/Society/Company etc., if any:

Name of Institutions	Year of Establishment	Programs of Study	Location
Rasiklal m Dhariwal college of Pharmacy	2006	D Pharm	Chinchwad, Pune
Rasiklal M Dhariwal Institute of Pharmaceutical Education and	2014	B Pharm	Chinchwad, Pune

7 Details of all the programs being offered by the institution under consideration:

Name of Program	Program Applied level	Start of year	Year of AICTE approval	Initial Intake	Intake Increase	Current Intake	Accreditation status	From	To	Program for consideration	Program for Duration
Computer Engineering	Diploma	2001	2001	60	Yes	90	Applying first time	--	--	Yes	0

Sanctioned Intake for Last Five Years for the Computer Engineering

Academic Year	Sanctioned Intake
2022-23	90
2021-22	60
2020-21	60
2019-20	60
2018-19	60
2017-18	60

7a Accreditation History

Sr.No	Name of the Department	Name of the Program	Year of 1st Accreditation(if Applicable)	Year of 2nd Accreditation(if Applicable)	Year of 3rd Accreditation(if Applicable)
1					

7b Programs to be considered for Accreditation vide this application:

S No	Level	Discipline	Program
1	Diploma	Engineering & Technology	Computer Engg.
2	Diploma	Engineering & Technology	Mechanical Engg.

8 Total number of Employees:

A. Regular* Employees (Faculty and Staff):

Engineering and Technology- Diploma	<input checked="" type="checkbox"/> Shift1	<input type="checkbox"/> Shift2
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Engineering and Technology- Diploma Shift-1

Items	2022-23		2021-22		2020-21	
	MIN	MAX	MIN	MAX	MIN	MAX
Faculty in Engineering & Technology (Male)	2	2	2	2	2	2
Faculty in Engineering & Technology (Female)	6	6	4	4	4	4
Faculty in Science & Humanities (Male)	0	0	0	0	0	0
Faculty in Science & Humanities (FeMale)	2	2	2	2	2	2
Non-teaching staff (Male)	2	2	2	2	2	2
Non-teaching staff (FeMale)	4	4	2	2	2	2

B. Contractual Staff (Not Covered in 9.A):

Engineering and Technology- Diploma	<input checked="" type="checkbox"/> Shift1	<input type="checkbox"/> Shift2
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Engineering and Technology- Diploma Shift-1

Items	2022-23		2021-22		2020-21	
	MIN	MAX	MIN	MAX	MIN	MAX
Faculty in Engineering & Technology (Male)	0	0	0	0	0	0
Faculty in Engineering & Technology (Female)	0	0	0	0	1	1
Faculty in Science & Humanities (Male)	0	0	0	0	0	0
Faculty in Science & Humanities (FeMale)	0	0	0	0	0	0
Non-teaching staff (Male)	0	0	0	0	0	0
Non-teaching staff (FeMale)	0	0	0	0	0	0

9 Total number of Students:

Engineering and Technology- Diploma Shift1 Shift2**Engineering and Technology- Diploma Shift-1**

Course Name	2022-23	2021-22	2020-21
Total no. of Boys	106	84	86
Total no. of Girls	86	94	106
Total	192	178	192

10 Contact Information of the Head of the Institution and NBA Coordinator:

Head of the Institution	
Name	A B Thite
Designation	Principal
Mobile No.	9822889471
Email ID	thiteab@gmail.com

 NBA Coordinator, If Designated

Name	Mrs. A. A. Deshpande
Designation	HOD Computer Engg
Mobile No.	9850978522
Email ID	E-Mail

Computer Engg.

PART B: Criteria Summary

Criteria No.	Criteria	Total Marks	Institute Marks
1	VISION, MISSION AND PROGRAM EDUCATIONAL OBJECTIVES	50	50.00
2	PROGRAM CURRICULUM AND TEACHING - LEARNING PROCESSES	200	200.00
3	COURSE OUTCOMES AND PROGRAM OUTCOMES	100	100.00
4	STUDENTS' PERFORMANCE	200	132.09
5	FACULTY INFORMATION AND CONTRIBUTIONS	150	121.03
6	FACILITIES AND TECHNICAL SUPPORT	100	100.00
7	CONTINUOUS IMPROVEMENT	75	75.00
8	STUDENT SUPPORT SYSTEMS	50	50.00
9	GOVERNANCE, INSTITUTIONAL SUPPORT AND FINANCIAL RESOURCES	75	75.00
	Total	1000	903

Part B

1 VISION, MISSION AND PROGRAM EDUCATIONAL OBJECTIVES (50)

Total Marks 50.00

1.1 State the Vision and Mission of the Department and Institution (5)

Total Marks 5.00

Vision of the institute	A lead provider of quality and affordable technical education to serve the Society										
Mission of the institute	M1: To Develop the ideal working attitude and values of the students. M2: To maintain the quality of Teaching learning Process M3: To bridge the gap between industry and institute.										
Vision of the Department	Imparting broad –based technologies for the welfare of society										
Mission of the Department	<table border="1"> <thead> <tr> <th data-bbox="434 593 595 651">Mission No.</th> <th data-bbox="595 593 1518 651">Mission Statements</th> </tr> </thead> <tbody> <tr> <td data-bbox="434 651 595 842">M1</td> <td data-bbox="595 651 1518 842">To provide quality engineering education through state of the art Technology</td> </tr> <tr> <td data-bbox="434 842 595 1034">M2</td> <td data-bbox="595 842 1518 1034">To create learning environment that helps to enhance problem solving skills in professional lives with skills</td> </tr> <tr> <td data-bbox="434 1034 595 1225">M3</td> <td data-bbox="595 1034 1518 1225">To establish industry and institute interaction to make students ready for the industrial environment</td> </tr> <tr> <td data-bbox="434 1225 595 1417">M4</td> <td data-bbox="595 1225 1518 1417">To provide exposure to the latest tools and technologies in the area of Computer Hardware and software.</td> </tr> </tbody> </table>	Mission No.	Mission Statements	M1	To provide quality engineering education through state of the art Technology	M2	To create learning environment that helps to enhance problem solving skills in professional lives with skills	M3	To establish industry and institute interaction to make students ready for the industrial environment	M4	To provide exposure to the latest tools and technologies in the area of Computer Hardware and software.
Mission No.	Mission Statements										
M1	To provide quality engineering education through state of the art Technology										
M2	To create learning environment that helps to enhance problem solving skills in professional lives with skills										
M3	To establish industry and institute interaction to make students ready for the industrial environment										
M4	To provide exposure to the latest tools and technologies in the area of Computer Hardware and software.										

1.2 State the Program Educational Objectives (PEOs) (5)

Total Marks 5.00

Institute Marks

5.00

PEO No.	Program Educational Objectives Statements
PEO1	Provide socially responsible, environment friendly solutions to Computer engineering related broad-based problems adapting professional ethics.
PEO2	Adapt state-of-the-art Computer engineering broad-based technologies to work in multidisciplinary work environments
PEO3	Solve broad-based problems individually and as a team member communicating effectively in the world of work.

1.3 Indicate where and how the Vision, Mission and PEOs are published and disseminated among stakeholders (10)

Total Marks 10.00

Vision and Mission of the department are articulated carefully and are in consistent with the Vision and Mission of the Institute. The mechanism used for the awareness of all the internal as well as external stakeholders about the Vision, Mission statements and PEOs is described below:

- Print and visual media are used to exhibit or display these statements where ever possible.
- These are displayed on notice boards, in the classrooms and laboratories and in HOD cabin.
- Students, Parents and all other visitors are able to view these display boards easily.
- Every year Principal's Address or Induction program is organized for the students who are newly admitted to First year. In this program they are well informed about Vision, Mission and PEOs.
- Course teachers and Mentors discuss the Vision, Mission and PEOs with the students.
- During the Parents meet, Alumni meet and similar meetings these statements are always presented through "PPTs".
- By arranging meetings of supporting staff (class C and class D employees) these Statements are explained to them in Vernacular / regional language .The vision, Mission and PEOs are published in various documents and they are disseminated to stake holders by various means. The ways are summarized in table 1.3.1.

A. Adequacy in respect of publication & dissemination

Table 1.3.1 Publication medium

Sr.No.	Media of Publication	Remark
1	Institute Website	rmdiot.in
2	Department Level Documents	Faculty Course File, Project Report, News Letter
3	Library	Display
4	HOD Cabin	Display
5	Department Notice Board	Display
6	Corridors of Department	Display
7	Departmental Labrortories	Display

Our Vision

A lead provider of quality and affordable technical education to serve the Society.
समाजाची सेवा करण्यासाठी दर्जेदार आणि परवडणारे तांत्रिक शिक्षण देणारे आघाडीचे प्रदाता

Our Mission

M1: To Develop the ideal working attitude and values of the students.
विद्यार्थ्यांची आदर्श कार्य वृत्ती आणि मूल्ये विकसित करणे

M2: To maintain the quality of Teaching learning Process.
शिकविण्याच्या व शिक्षण घेण्याच्या प्रक्रियेची गुणवत्ता राखणे

M3: To bridge the gap between industry and institute.
उद्योग आणि संस्था यांच्यातील दरी कमी करणे.

M4: To enhance the multidisciplinary skills of the faculty and students.

The screenshot shows a web browser window with the URL `rmdiot.in/index.php/departments/computer-engineering`. The page has a dark red header with navigation links: HOME, ABOUT US, ADMISSIONS, TRAINING & PLACEMENT, STUDENT SECTION, EXAM, ALUMNI, EVENT, DEPARTMENTS (highlighted), and CONTACT US. The main content area is white and contains the following text:

Vision:-
 Imparting broad -based technologies for the welfare of society
 समाजाच्या कल्याणासाठी व्यापक-आधारित तंत्रज्ञान प्रदान करणे

Mission:-

M1: To provide quality engineering education through state of the art Technology
 अत्याधुनिक तंत्रज्ञानाद्वारे दर्जेदार अभियांत्रिकी शिक्षण देणे

M2: To create learning environment that helps to enhance problem solving skills in professional lives with Ethics
 शिकण्याचे वातावरण तयार करणे जे कौशल्यांसह व्यावसायिक जीवनात समस्या सोडवण्याचे कौशल्य वाढवण्यास मदत करते

M3: To establish industry and institute interaction to make students ready for the industrial environment.
 विद्यार्थ्यांना औद्योगिक वातावरणासाठी तयार करण्यासाठी उद्योग आणि संस्था परस्परसंवाद स्थापित करणे

M4: To provide exposure to the latest tools and technologies in the area of Computer Hardware and software.
 संगणक हार्डवेअर आणि सॉफ्टवेअर क्षेत्रातील नवीनतम साधने आणि तंत्रज्ञान अवगत करून देणे.

Program Educational Objectives(PEO)

PEO.1.Provide socially responsible, environment friendly solutions to Computer engineering related broad-based problems adapting professional ethics.
 PEO.2.Adapt state-of-the-art Computer engineering broad-based technologies to work in multidisciplinary work environments.
 PEO.3.Solve broad-based problems individually and as a team member communicating effectively in the world of work

Program Specific Objectives (PSO)
 PSO.1.Computer Software and Hardware Usage: Use state-of-the-art technologies for operation and application of computer software and hardware.

The browser's taskbar at the bottom shows the Windows logo, a search bar with the text "Type here to search", and several application icons including File Explorer, Mail, Chrome, and Edge. The system tray on the right shows the time as 13:54 and the date as 03-11-2023.

Fig. 1.3.1 Display of Vision,Mission statements on Institute website

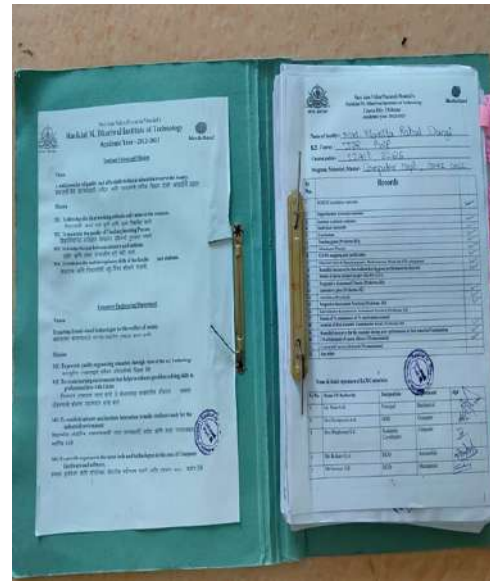
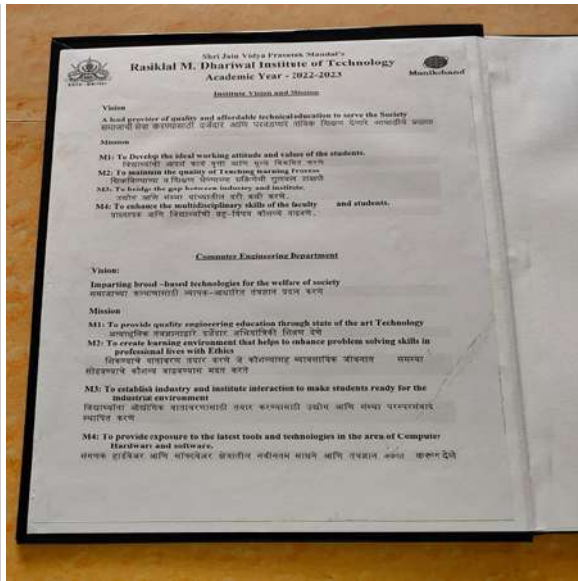


Fig. 1.3.2 Display of Vision, Mission statements in Departmental Documents (Project Report, Faculty Course file)



Fig. 1.3.3 Display of Vision, Mission statements in Library

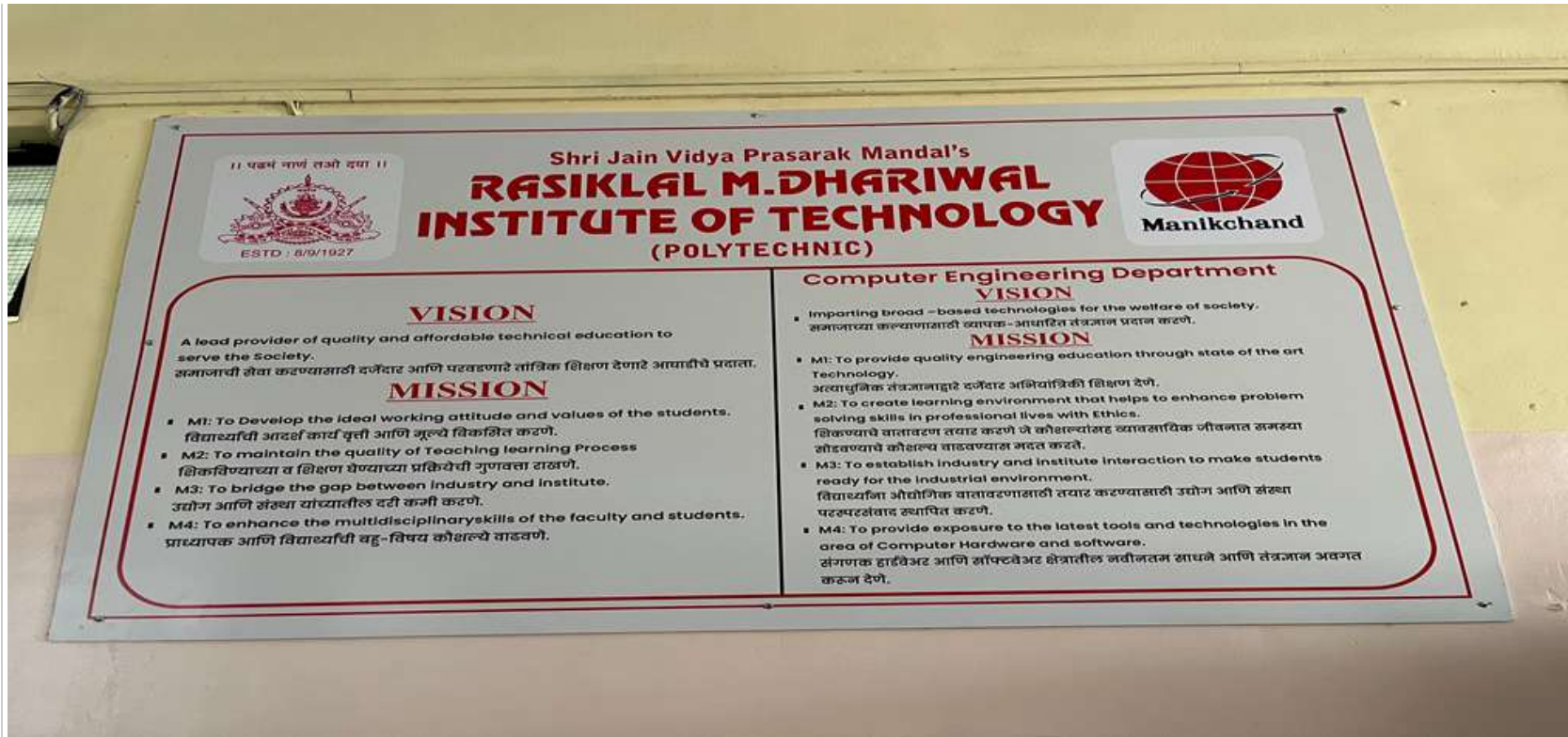


Fig. 1.3.4 Display of Vision, Mission statements in HOD Cabin

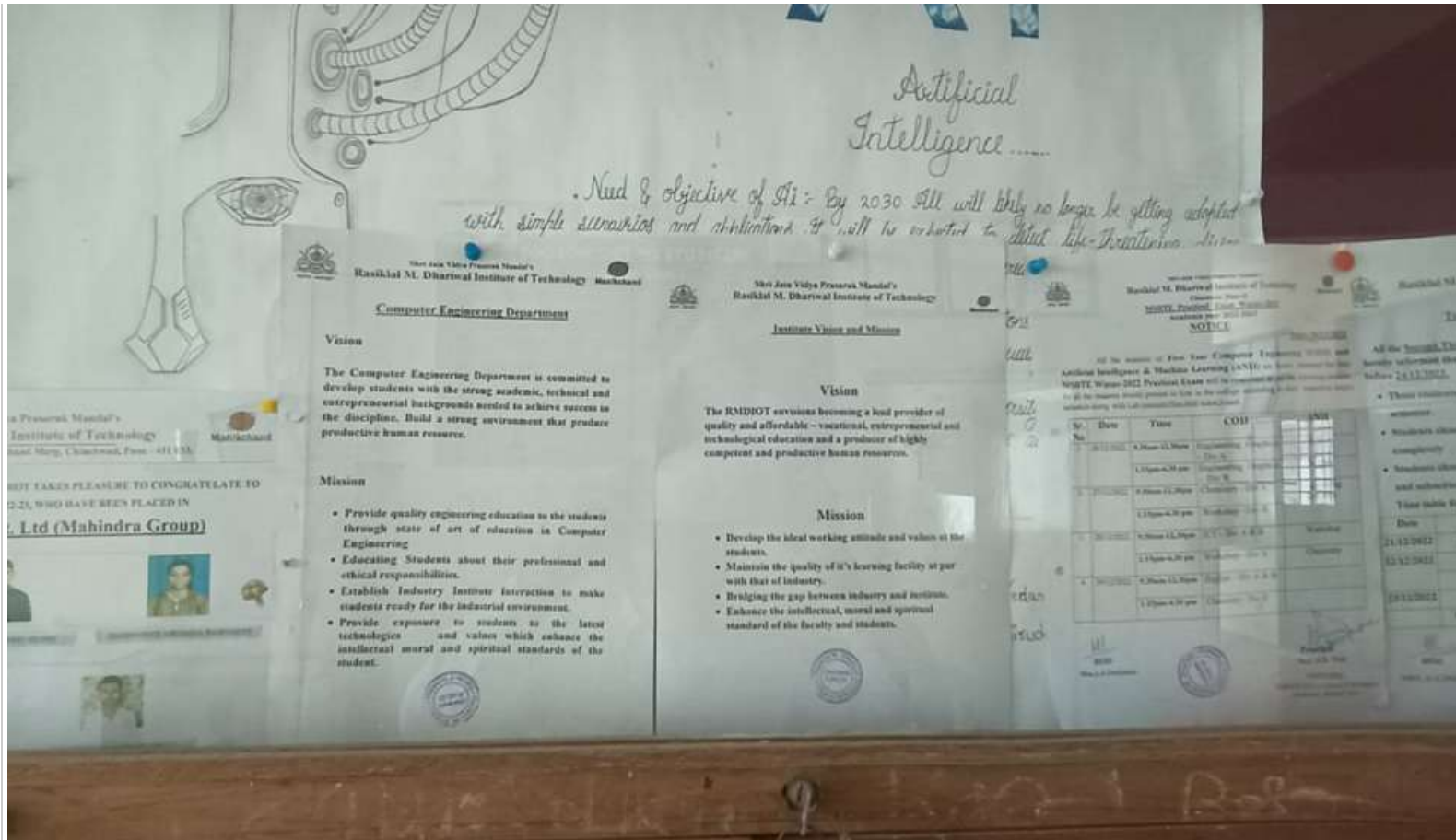


Fig. 1.3.5 Display of Vision,Mission statements iDepartment Notice Board

SHRI JAIN VIDYA PRASARAK MANDAL'S
RASIKLAL M DHARIWAL
INSTITUTE OF TECHNOLOGY
 (POLYTECHNIC)
 DIPLOMA PROGRAM IN COMPUTER ENGINEERING
 I - Scheme
Program Structure

Program Educational Objective (PEOs)

PEO 1. Provide socially responsible, environment friendly solution to computer engineering related broad-based problems adapting professional ethics

PEO 2. Adapt state-of-the-art computer engineering broad-based technologies to work in multi-disciplinary work environments.

PEO 3. Solve broad-based problems individually and as a team member communicating effectively in the world of work

Program Outcomes (POs)

PO 1. **Basic knowledge** : Apply knowledge of basic mathematics, sciences and basic engineering to solve the broad - based Computer engineering problems.

PO 2. **Discipline knowledge** : Apply computer engineering discipline- specific knowledge to solve core computer engineering related problems..

PO 3. **Experiments and practice** : Plan to perform experiments and practices to use the results to solve broad - based computer engineering problems.

PO 4. **Engineering tools** : Apply relevant computer technologies and tools with an understanding of the limitations

PO 5. **The engineer and society** : Assess societal, health, safety, legal and cultural issue and the consequent responsibilities relevant to practice in field of computer engineering.

PO 6. **Environment and sustainability** : Apply computer engineering solutions also for sustainable development practices in societal and environmental contexts and demonstrate the knowledge and need for sustainable development

PO 7. **Ethics** : Apply ethical principles for commitment to professional ethics, responsibilities and norms of the practice also in the field of Computer engineering.

PO 8. **Individual and team work** : Function effectively as a leader and team member in diverse / multidisciplinary teams.

PO 9. **Communication** : Communicate effectively in oral and written form

PO 10. **Life-long learning** : Engage in independent and life-long learning activities in the context of technological changes in the computer engineering field and allied industry

Program Specific Outcomes (PSO)

PSO 1 : **Computer Software and Hardware And Hardware Usage** : Use state-of-the-art technologies for operation and application of computer software and hardware.

PSO 2. **Computer Engineering Maintenance** : Maintenance Computer Engineering related software and hardware systems.



Fig. 1.3.6 Display of Vision, Mission statements in Department Corridors



Fig. 1.3.7 Display of Vision, Mission statements Departmental Laboratories

Table 1.3.2 Dissimination Method

Sr.No.	Method of Dissimination	Remark
1	College Programs	Display
2	Parent Teachers Meetings	Display
3	Placement Drives	Display
4	Alumni Meetings	Display
5	E-mail corospondance	Display



Fig. 1.3.8 Information about Vision, Mission statements in College Programs



Fig. 1.3.9 Display of Vision, Mission statements in Parents Meeting



Fig. 1.3.10 Display Vision, Mission statements in Placement Drives



Fig. 1.3.11 Information about Vision, Mission statements in Alumni Meeting

New Message

From Rasiklal M Dhariwal Institute of Technology <rmdiot@gmail.com> ▾

To

Subject

--
Rasiklal M. Dhariwal Institute_of Technology, Chinchwad, Pune-33

020-27353516

VISION:

A lead provider of quality and affordable technical education to serve the Society

MISSION:

M1: To Develop the ideal working attitude and values of the students.

M2: To maintain the quality of Teaching learning Process

M3: To bridge the gap between industry and institute.

M4: To enhance the multidisciplinary skills of the faculty and students.



Fig. 1.3.12 Display of Vision, Mission statements in E-mail correspondence

1.4 State the process for defining the Vission and Mission of the Department, and PEOs of the program (15)

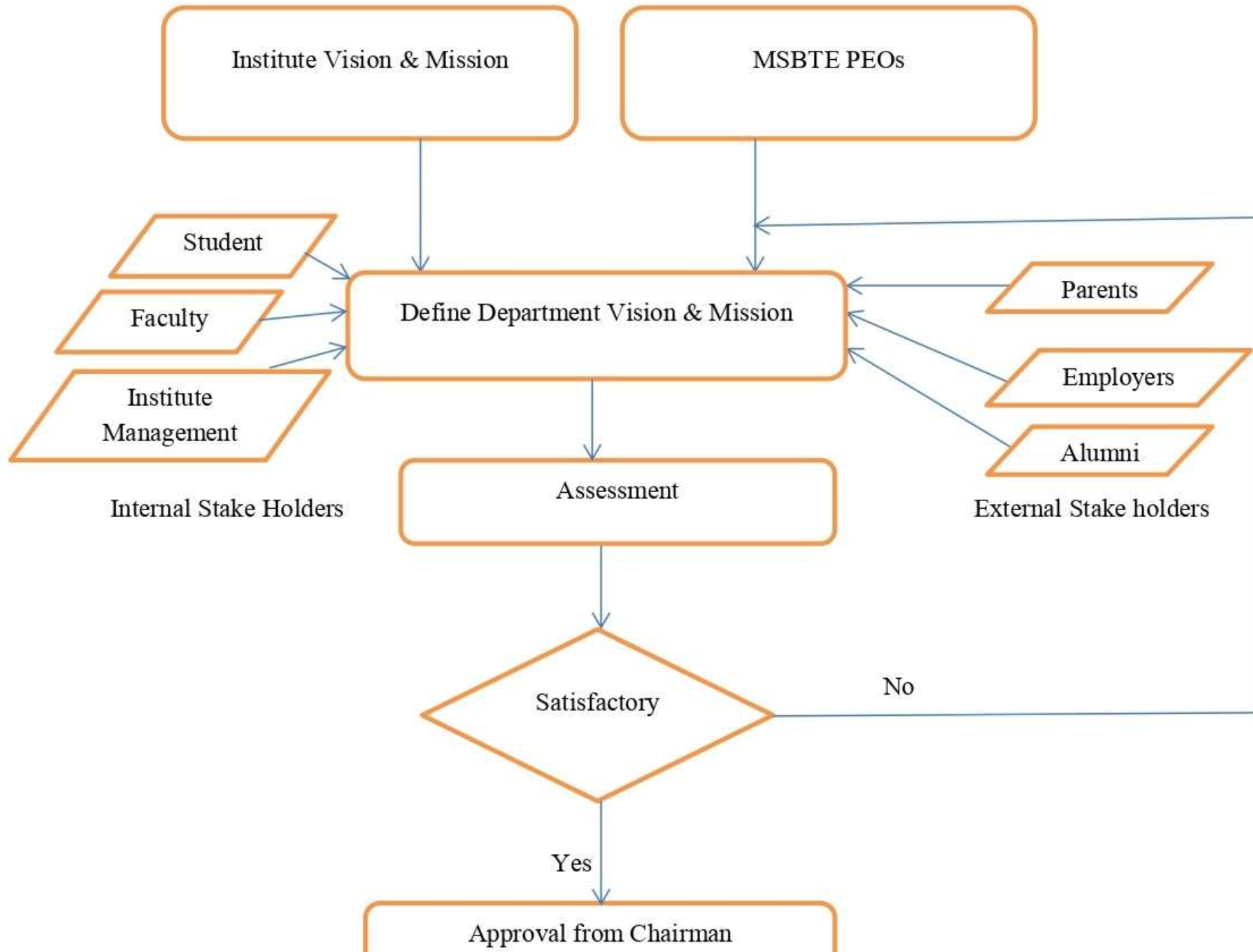
Total Marks 15.00

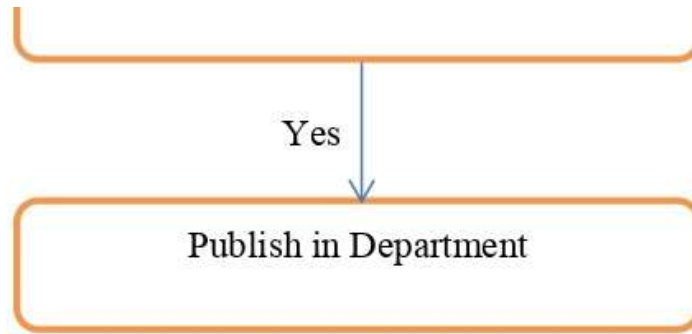
- Vision and Mission of the institute are considered as a base.
- The Principal ,Computer Engineering Department HOD with the active participation of faculty members and based on the feedback from internal and external stakeholders developed the draft copy of vision and mission statement of the department.
- The draft copy validated in the following meetings:-

Sr. No.	Meeting	Date
1	Meeting Draft -1	23/06/2018
2	Meeting Draft -2	20/07/2018
3	Meeting Draft -3	17/08/2018
4	Meeting Draft -4	19/09/2018

- As per the suggestions received in the above meetings the final draft was prepared by the committee and approved in the department meeting on 24/09/2018.
- The vision and mission statements are sent to the management committee for approval. Finally the Vision and Mission are approved by the IQAC Institute.

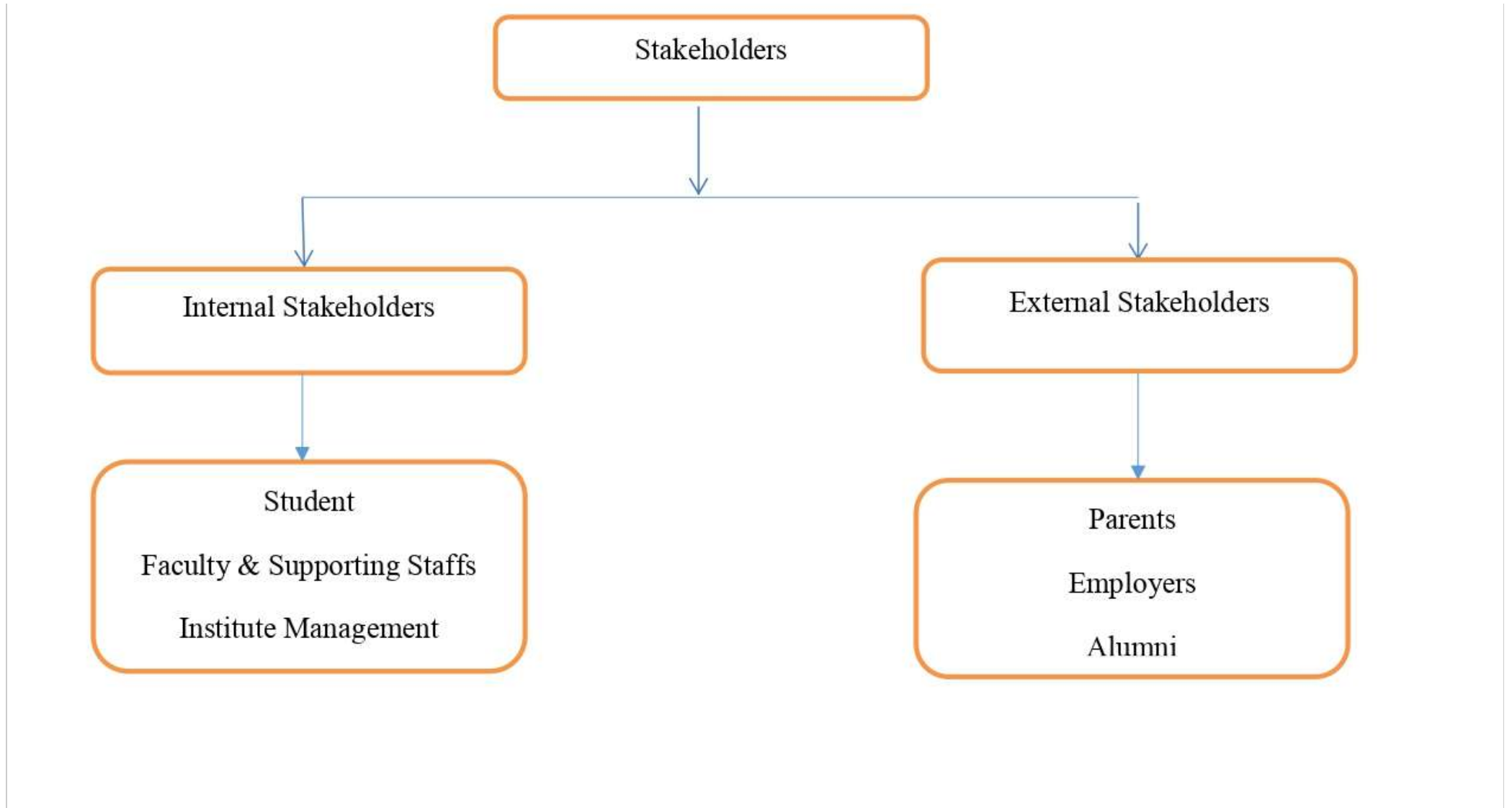
B. Process of dissemination among stakeholders





C. Extent of awareness of Vision, Mission & PEOs among the stakeholders

Following stakeholders are aware of Vision, Mission & PEOs



1.5 Establish Consistency of PEOs with Mission of the Department (15)

Total Marks 15.00

PEO Statements	M1	M2	M3	M4	Justification
PEO1	3	3	2	2	<ul style="list-style-type: none"> • (Mission 1) Strongly supports PEO1 to set a strong foundation in Computer Engineering to succeed in industry or higher education. • (Mission 2) Strongly supports to achieve PEO1, as objective is to achieve professional lives by adapting to challenges in rapidly changing technology. • (Mission 3) Moderately supports to achieve PEO1, as objective is to achieve professional skills for their lifelong journey. • (Mission 4) Moderately supports to achieve PEO1, as objective is to achieve latest industrial trends to meet their requirements.
PEO2	3	2	2	2	<ul style="list-style-type: none"> • Strongly support technical knowledge (Mission 1) help in achieving success in higher education or research or entrepreneurship. • Better environment for professional growth (Mission 2) can help in adapting emerging technologies. • (Mission 3) Moderately supports to achieve PEO2, as objective is to achieve professional skills for their lifelong journey using broad base technologies. • (Mission 4) Moderately supports to achieve PEO2, as objective is to achieve latest industrial trends to meet their requirements by adapting state-of-art computer engineering broad base technologies.
PEO3	2	3	3	2	<ul style="list-style-type: none"> • (Mission 1) Moderately supports PEO3 to embed a foundation of technical knowledge leads to professional development. • Strong bond is necessary to develop leadership qualities (Mission 2) helps in higher education or research or entrepreneurship. • Strong support technical knowledge (Mission 3) help in achieving success for students lifelong. • (Mission 4) Moderately supports to achieve PEO3, as objective is to achieve latest industrial trends to meet their requirements by communicating team members effectively.

PEO Statements	M1	M2	M3	M4
Provide socially responsible, environment friendly solutions to Computer engineering related broad-based problems adapting professional ethics.	3 ▾	3 ▾	2 ▾	2 ▾
Adapt state-of-the-art Computer engineering broad-based technologies to work in multidisciplinary work environments	3 ▾	2 ▾	2 ▾	2 ▾
Solve broad-based problems individually and as a team member communicating effectively in the world of work.	2 ▾	3 ▾	3 ▾	2 ▾

2 PROGRAM CURRICULUM AND TEACHING - LEARNING PROCESSES (200)

Total Marks 200.00

2.1 Program Curriculum (40)

All POs and PSOs are being demonstrably met through Curriculum ? :

2.1.1 State the process used to identify extent of compliance of the Board curriculum for attaining the Program Outcomes (POs) and Program Specific Outcomes (PSOs) as mentioned in Annexure I. Also mention the identified curricular gaps, if any (25) Institute Marks

25.00

A. Process used to identify extent of compliance of curriculum for attaining POs & PSOs (15) Institute Marks

15.00

R.M.D.I.O.T. institute is affiliated to Maharashtra State Board of Technical Education, Mumbai. So, we followed the curriculum as per scheme and curriculum of affiliated board. We have done the classification of courses based on domains as follows-

- 1. Science and Humanities**
- 2. Basic Engineering**
- 3. Advance Engineering**
- 4. Project and Electives**

◦ **The process used to identify extent of compliance of curriculum for attaining POs and PSOs is as follows-**

- 1. Mapping of each course outcome with POs and PSOs is done by respective course teacher.**
- 2. Classifications of courses are done in above mentioned 4 domains.**
- 3. Courses are classified from first semester to sixth semester as shown in Table 2.1.1 and correlated to each other for checking prerequisite knowledge of semester courses.**
- 4. The flaws in the curriculum to attain the Program Outcomes were identified as curriculum gap.**
- 5. Feedbacks from internal and external stakeholders were considered to identify curriculum gap.**
- 6. Action plan is created to bridge the curriculum gap. Guest lectures, workshops, seminars are arranged for students by experts from Industries, Institutes and alumni.**
- 7. Curriculum from autonomous Institutes is considered as content beyond syllabus.**

Same is illustrated by following figure:-

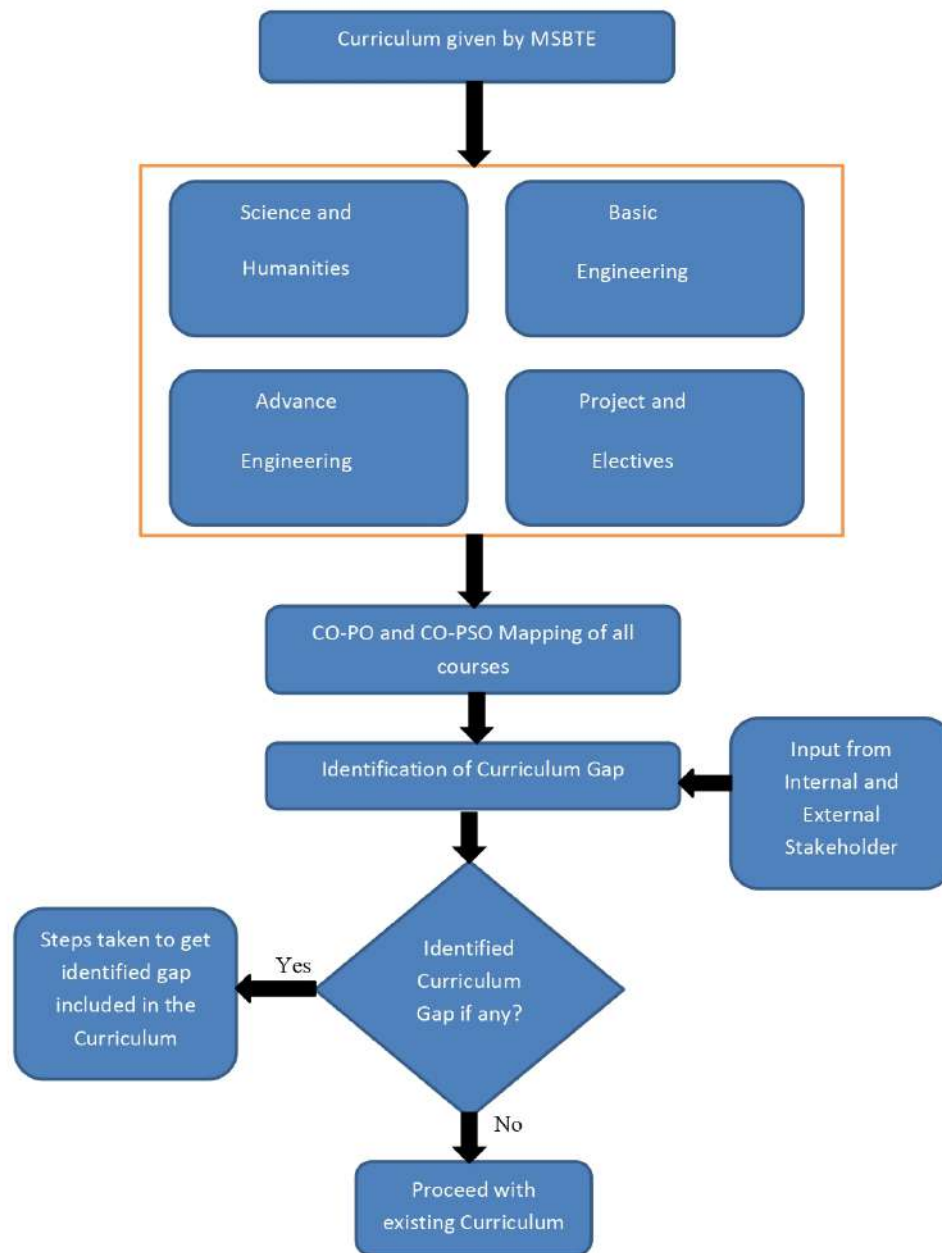


Figure 2.1.1 Process used to identify extent of compliance of curriculum for attaining POs and PSOs

- **List of courses from first semester to sixth semester**

Sr. No	Semester-1	Semester-2	Semester-3	Semester-4	Semester-5	Semester-6
1	English (ENG) (22101)	Business Communication Using Computers (BCY)(22009)	Object Oriented Programming (OOP) (22316)	JAVA Programming (JPR)(22412)	Environmental Studies (EST)(22447)	Management (MGT)(22509)
2	Basic Science (Physics & Chemistry) (BSC) (22102)	Computer Peripheral & Hardware Maintenance (CPH) (22013)	Data Structure using "C" (DSU)(22317)	Software Engineering (SEN)(22413)	Operating System (OSY)(22516)	Programming with Python (PWP)(22616)
3	Basic Mathematics (BMS) (22103)	Web Page Design With HTML (WPD) (22014)	Computer Graphics (CGR)(22318)	Data communication and Computer Network (DCC)(22414)	Advanced Java Programming (AJP)(22517)	Mobile Application Development (MAD) (22617)
4	Fundamentals of ICT (ICT) (22001)	Elements of Electrical Engineering (EEC)(22215)	Database Management System (DMS)(22319)	Microprocessor (MIC)(22415)	Software Testing (STE)(22518)	Emerging Trends in Computer and Information Technology (ETI) (22618)
5	Engineering Graphics (EGE) (22002)	Applied Mathematics (AME)(22224)	Digital Techniques (DTE)(22320)	GUI Application Development using VB.Net (GAD)(22034)	Advanced Database Management system(ADM) (22521)	Network and Information Security (NIS) (22620)
6	Workshop Practice (WPC) (22004)	Basic Electronics (BEC) (22225)			Industrial Training (ITR)(22057)	Entrepreneurs hip Development (EDE) (22032)
7		Programming in C (PCT) (22226)			Capstone Project Planning (CPP)(22058)	Capstone Project Execution and Report Writing (CPE) (22060)

Table 2.1.1 Semester wise course list

Ø Classification of courses based on domains

Classification of courses based on domains

Sr. No.	Course Domains	No. of Courses	Percentage of courses as per domain	POs Mapped
1	Science and Humanities	7	18.91%	PO1, PO5
2	Basic Engineering	19	51.35%	PO1,PO2,PO3,PO4
3	Advance Engineering	7	18.91%	PO1,PO2,PO3,PO4,PO5,PO6,PO7
4	Project and Electives	4	10.81%	PO4,PO6,PO7
	Total	37		

Table 2.1.2 Classification of courses based on domains

Ø Pie chart of Classification of courses based on domains

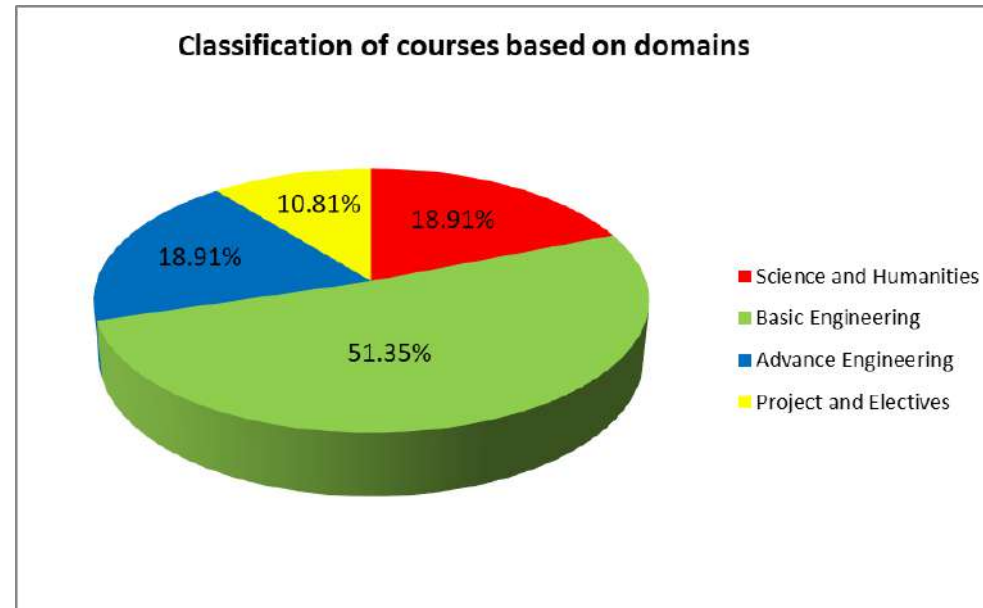


Figure 2.1.2 Classification of courses based on domains

- Prerequisite knowledge of semester wise courses

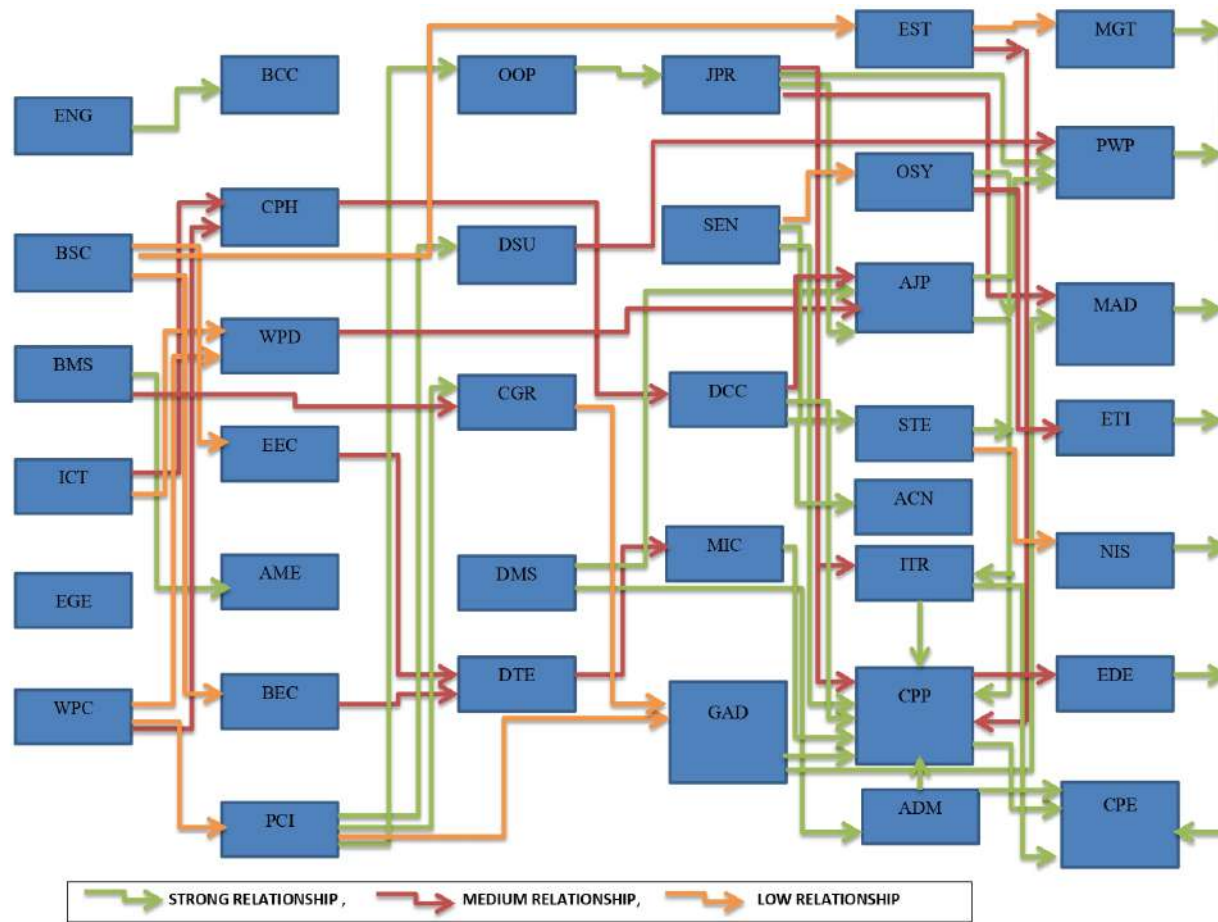


Figure 2.1.3 Prerequisite knowledge of semester wise courses

B. List the curricular gaps for the attainment of POs & PSOs (10)

Institute Marks

10.00

- **PO-PSO-PEO of COMPUTER DEPARTMENT**

- **Program Outcome Statement**

PO1 Basic and Discipline specific knowledge: Apply knowledge of basic mathematics, science and engineering fundamentals and engineering specialization to solve the engineering problems,

PO2 Problem analysis: Identify and analyse well-defined engineering problems using codified standard methods.

PO3 Design/development of solutions: Design solutions for well-defined technical problems and assist with the design of systems components or processes to meet specified needs.

PO4 Engineering Tools, Experimentation and Testing: Apply modern engineering tools and appropriate technique to conduct standard tests and measurements.

PO5 Engineering practices for society, sustainability and environment: Apply appropriate technology in context of society, sustainability, environment and ethical practices.

PO6 Project Management: Use engineering management principles individually, as a team member or a leader to manage projects and effectively communicate about well-defined engineering activities.

PO7 Life-long learning: Ability to analyse individual needs and engage in updating in the context of technological changes.

- **Program Specific Outcome Statement**

PSO1-Computer Software and Hardware Usage: Use state-of-the-art technologies for operation and application of computer software and hardware.

PSO2-Computer Engineering Maintenance: Maintain computer engineering related software and hardware systems.

- **Program Educational Outcome Statement**

PEO 1: Provide socially responsible, environment friendly solution to computer engineering related broad based problems adapting professional ethics.

PEO 2: Adapt state-of-the-art computer engineering broad-based technologies to work in multi-disciplinary work environments.

PEO 3: Solve broad-based problems individually and as a team member communicating effectively in the world of work.

- **Identification of curricular gaps:-**

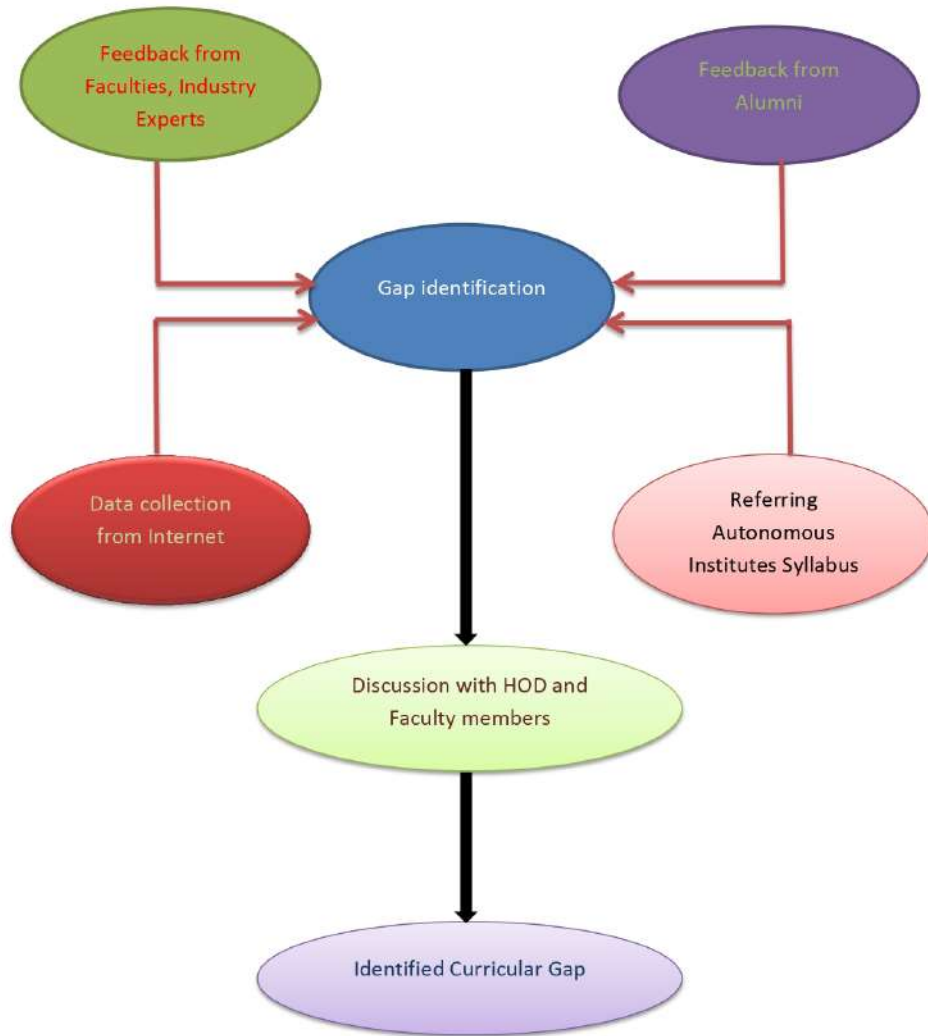


Figure 2.1.4 Identifying Curricular Gap

- **Identifying Curricular Gap as follows:-**
- **Method A) Process used for identifying curricular gaps**

1. First of all a detailed study of the course assigned to the respective course teacher is done. After conversation with other teachers and according to the discussion held in department meeting the link between various curriculum subjects and the prerequisite knowledge is discussed. The curriculum gaps are identified and the strategy to overcome these gaps is discussed.
2. A brainstorm session is conducted among visiting experts, departmental staff and HOD and recent advances in the industry which are knowledgeable for the students are identified. According to that proper action plan is prepared.
3. Autonomous institutes curriculum is also discussed and the necessary contents are added in the action plan.
4. Google forms are created and feedback was taken from Internal, External stakeholders to identify the curriculum gap.

- **Method B) Using Prerequisite knowledge of courses (Curriculum Gap Analysis)**

By considering the fig. 2.1.3 certain curriculum gap is identified.

- **Method C) At PO, PSO level (Curriculum Gap Analysis)**

- 1) As mentioned in 2.1.1A CO- PO- PSOs are achieved through formal courses and other co-curricular and extracurricular activities.
- 2) As target levels of attainment of POs and PSOs are set and actual attainment of POs and PSOs are calculated and based on that curriculum gap analysis is done.

Net Achieved Level Out Of All Courses	84.35	84.07	77.77	74.91	74.12	78.23	84.73	75.99	64.74
Direct Attainment (DA)	2.28	2.27	2.10	2.02	2.00	2.11	2.29	2.05	1.75
80% of Direct Attainment (DA)	1.82	1.82	1.68	1.62	1.60	1.69	1.83	1.64	1.40
Indirect Attainment (IA)	1.04	0.96	1.01	0.99	0.64	0.92	0.92	1.02	1.00
20% of Indirect Attainment (IA)	0.21	0.19	0.20	0.20	0.13	0.18	0.18	0.20	0.20
Final Total (100%) Attainment Achieved (DA+IA)	2.03	2.01	1.88	1.82	1.73	1.88	2.02	1.85	1.60
Set Target Attainment	2.27	2.16	2.11	2.18	1.86	2.04	2.06	2.17	2.04
GAP of PO Attainment	0.24	0.15	0.23	0.34	0.13	0.17	0.05	0.32	0.44

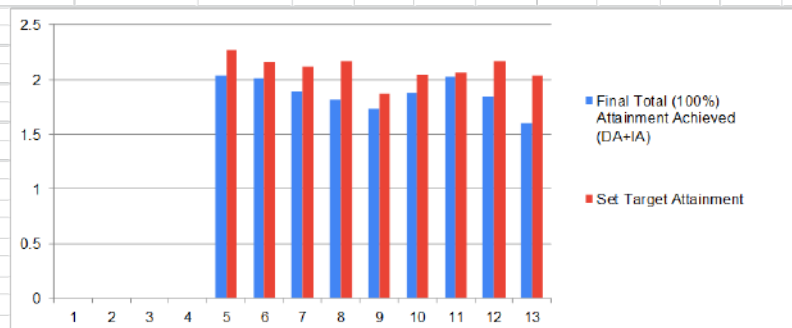


FIGURE 2.1.5 At PO, PSO level (2022-2023) (Curriculum Gap Analysis)

Following curriculum gaps are identified by using above A, B and C methodologies:-

1. Personality development is the most important part in education and overall development of student. (Achieved through method A)
2. Programming in 'C' for Direct Second year students and change of Program students. (Achieved through method A)
3. Emerging, Advance Technologies in Industry. (Achieved through method A)
4. Introduction to Database Management System. (Achieved through method A and B)
5. Introduction to Software Engineering Principles. (Achieved through method A and B)
6. PSO1, PSO2 (Achieved through method C)

- Process used for identifying curricular gaps:-
- Process used for identifying curricular gaps and prepare Action Plan

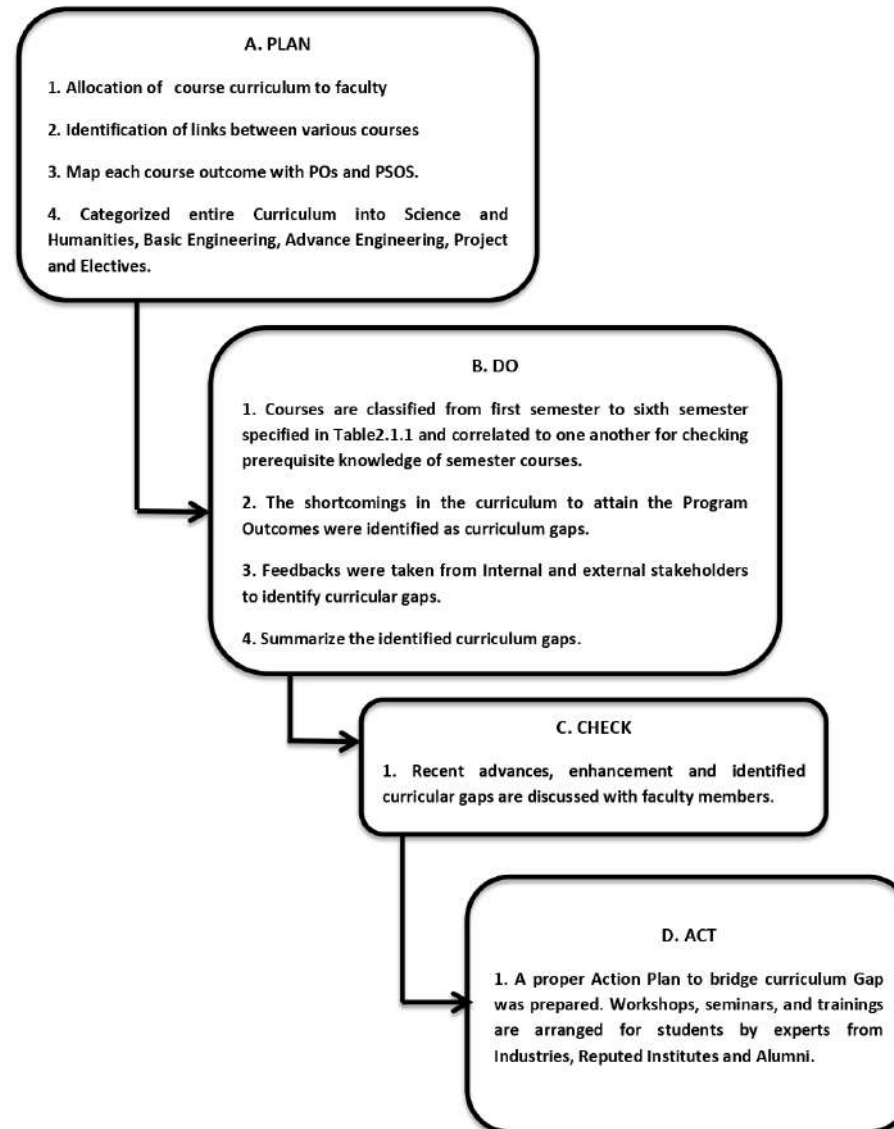


Figure 2.1.6 Process used for Identifying Curricular Gap

2.1.2 Contents beyond the Syllabus (15)

Institute Marks

15.00

A. Steps taken to get identified gaps included in the curriculum (eg. letters to Board) (2)

Institute Marks

2.00

A. Steps taken to get identified gaps included in the curriculum (2)

- The curriculum prescribed by MSBTE is followed in the program.
- Under impact factor provided by MSBTE Institute faculty and Industry experts have given suggestions
- The departmental staff continuously encourages the students to enhance their awareness towards the attainment of POs and PSOs.

2/1/23, 4:17 PM

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In come - Institute Name - 0363-Shri Jain Vidya Prasarak Mandal's Rasiklal M. Dhariwal Institute of Technology, Chinchwad City:Chinchwad

IMPACT FEEDBACK FACULTY

Maharashtra State Board of technical Education, Mumbai

Feedback on the Impact of I - Scheme Curriculum of Diploma programme in Engineering.

Maharashtra State Board of technical Education, Mumbai (MSBTE) implemented I - Scheme Curriculum of Diploma programme in Engineering from academic year 2017-18. The curriculum was framed on the philosophy of Outcome Based Education (OBE) mandating the achievement of learning outcomes in all three domains of learning namely Cognitive, Psychomotor and Affective. Since 2020, the students completing the diploma programmes in I - Scheme in five major groups of engineering namely Civil, mechanical, Electrical, Electronics and Computer have entered Industry as employees. MSBTE intends to take feedback from stakeholder on impact of implementation of the I - Scheme curriculum. Honest & constructive feedback from you as a teaching faculty on the experience while teaching course in I - Scheme curriculum shall be vital inputs. MSBTE sincerely appreciates your cooperation towards improvement in quality of education in diploma programmes.

Name of the Programme CO Name of the Faculty KARDILE PRITEE SANDIP Contact No 9689885772

Designation Lecturer Email ID prikeechinchkar@gmail.com

Sr.No	Parameters for Feedback	Outstanding	Very Good	Good	Average	Poor
		5	4	3	2	1
1	Success in Achiving The Programme Outcomes POs (What student/s expected to do after completing the programme) set for I - Scheme Curriculum	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	Rating of achievement of programme Specific outcomes (PSOs Core Competencies) in implementation of I - Scheme Curriculum	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

https://curriculum.msbte.ac.in/msbteacmon/curdev/userindex.php?q=impact_feed_fac_view&id=2022

2/1/23, 4:17 PM Maharashtra State Board of Technical Education

3	Confidence level on achievement of programme educational objectives (PEOs - accomplishments in first five years after completion of programme	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	Effect of incorporation of micro projects in courses on the conceptual level learning in students.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5	Success level in including ability to compile, analyse information, ability to research explore, synthesize and present through Capstone project and project work.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6	Influence of Industrial training / Internship on the learning in affective domain and employability	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>


Suggestions for improvement & transition of curriculum in National Credit Framework as stipulated in NEP 2020:

1. improved additional behavioral skills
2. improved technical skill
3. repeate curriculum like a G scheme

1	Additional behavioral skills to be included	yes
2	Additional technical skills to be included	yes
3	View on Industrial Training / Internship	no
4	Types of industry based projects to be included	yes
5	Changes required for meet curriculum requirement for industry	no

2/3

https://curriculum.msble.ac.in/msbleacmon/curdev/user/index.php?q=impact_feed_fac_view&id=2022



Maharashtra State Board Of Technical Education, Mumbai

Online Portal for I Scheme Implementation

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Income - Institute Name - 0363-Shri Jain Vidya Prasarak Mandal's Rashtal M. Dharwal Institute of Technology, Chinchwad City:Chinchwad

IMPACT FEEDBACK FACULTY

Maharashtra State Board of technical Education, Mumbai

Feedback on the Impact of I - Scheme Curriculum of Diploma programme in Engineering.

Maharashtra State Board of technical Education, Mumbai (MSBTE) implemented I - Scheme Curriculum of Diploma programme in Engineering from academic year 2017-18. The curriculum was framed on the philosophy of Outcome Based Education (OBE) mandating the achievement of learning outcomes in all three domains of learning namely Cognitive, Psychomotor and Affective. Since 2020, the students completing the diploma programmes in I - Scheme in five major groups of engineering namely Civil, mechanical, Electrical, Electronics and Computer have entered Industry as employees. MSBTE intends to take feedback from stakeholder on impact of implementation of the I - Scheme curriculum. Honest & constructive feedback from you as a teaching faculty on the experience while teaching course in I - Scheme curriculum shall be vital inputs. MSBTE sincerely appreciates your cooperation towards improvement in quality of education in diploma programmes.

Name of the Programme	CO	Name of the Faculty	DESHPANDE APURVA ABHIJIT			
Designation	HOD	Contact No	9850978522			
Email ID	apurvadeshpande15@yahoo.com					

Sr.No	Parameters for Feedback	Outstanding	Very Good	Good	Average	Poor
		5	4	3	2	1
1	Success in Achieving The Programme Outcomes POs (What student/s expected to do after completing the programme) set for I - Scheme Curriculum	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	Rating of achievement of programme Specific outcomes (PSOs Core Competencies) in implementation of I - Scheme Curriculum	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	Confidence level on achievement of programme educational objectives (PEOs - accomplishments in first five years after completion of programme	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	Effect of incorporation of micro projects in courses on the conceptual level learning in students.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



- Success level in including ability to compile, analyse information, ability to research explore, synthesize and present through Capstone project and project work.
- 5
- Influence of Industrial training / internship on the learning in affective domain and employability
- 6

Suggestions for improvement & transition of curriculum in National Credit Framework as stipulated in NEP 2020:

1. Semester Duration for curriculum implementation should be more
2. Online examination should be simple
3. soft skill training should be included

1	Additional behavioral skills to be included	yes
2	Additional technical skills to be included	no
3	View on Industrial Training / Internship	Large scale industries can be included for training
4	Types of industry based projects to be included	yes
5	Changes required for meet curriculum requirement for industry	no

2/2/23, 10:20 AM Maharashtra State Board of Technical Education
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Welcome - Institute Name - 0363-Shri Jain Vidya Prasarak Mandal's Rasiklal M. Dhariwal Institute of Technology , Chinchwad City:Chinchwad

Impact Industry Registration

Name of Industry Name of the Industry Expert

Email Phone Number

Send Feedback Link

Sr No	Name of the Industry	Name of the Industry Expert	Email of the Industry Expert	Phone Number of the Industry Expert	Feedback Status of Industry Expert	Link
1	Softs LLP	Mr. Pramod Lakal	softsilp17@gmail.com	9420840212	YES	Copy Link
2	Skoda Auto Volkswagen India Pvt Ltd	Mr. Pradip Kshirsagar	pradip.kshirsagar@skoda-vw.co.in	9923225853	YES	Copy Link
3	Bajaj Auto Ltd Chakan	Mr. Ajit Kirnale	askirnale@bajajauto.co.in	9765063098	YES	Copy Link
4	General Motors	Mr. Mahesh Vyawahare	mahesh.r.vyawahare@gm.com	9096417632	YES	Copy Link
5	Netware Infotech	Mr. Ganesh Nemade	pgnemdae86@gmail.com	8857919594	YES	Copy Link

B. Delivery details of content beyond syllabus (10)

Institute Marks

10.00

B. Delivery details of content beyond syllabus (10)

- The identified Curriculum gaps are satisfied by the following process:-
 1. Guest Lectures / Workshops / Seminars by Internal / External Academic / Industrial Experts.
 2. Students Lab practices, Group Talks, Activities, presentations and videos.
 3. In-plant Training & Industrial Visits.
- Mapping of content beyond syllabus with the PO's& PSO's (3)**

POs –PSOs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
CBS delivery methods									
Guest Lectures / Workshops / Seminars by Internal / External Academic / Industrial Experts	√	√				√	√	√	√
Students Lab practices, presentations and videos	√	√		√			√	√	√
In-plant Training & Industrial Visits	√	√	√	√		√	√	√	√
Class Room Lectures	√	√					√	√	√
Laboratory Session	√	√	√	√		√	√	√	√
Group Talks/ Activities/Micro Project Seminars	√	√				√	√	√	√
Comprehensive viva voce	√	√					√	√	√

C. Mapping of content beyond syllabus with the POs & PSOs (3)

Institute Marks

3.00

2022-23

S.No	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	Mode	No. of students present	Relevance to POs, PSOs
1	3	Guest Lecture	02/11/2022	Mr. Shiv Sharma Jetking	OFFLINE	84	PO4,PO6,PO7
2	3	Guest Lecture	19/11/2022	Ms. Sandhya Salunke E	OFFLINE	45	PO2,PO3,PO4
3	1,6	Guest Lecture	12/11/2022	Mr. Anil Mahajan Project	OFFLINE	150	PO1,PO2, PO5
4	1,6	Guest Lecture	29/9/2022	Mrs. Munde S. S. Lectur	OFFLINE	34	PO1,PO2,PO7
5	2	Lab Practices :	24/09/2022	Mrs. P. S. Kardile Lectur	OFFLINE	9	PO1,PO2,PO3
6	3	Guest Lecture	19/11/2022	Mrs. Diksha Zadata	OFFLINE	230	PO2,PO3,PO4
7	1,6	Guest Lecture	19/11/2022	Mr. Arvind More	OFFLINE	113	PO1,PO2, PO5
8	3,4	Guest Lecture	25/11/2022	Mr. Mangesh Palwade	OFFLINE	72	PO1,PO2,PO4
9	3,4,5,6	Guest Lecture	03/12/2022	Mr. Rajendra Barge	OFFLINE	80	PO2,PO3,PO4
10	1,6	Ist Year Orient	26/9/2022	Mr. Khilari K.B. CEO, SJ	OFFLINE	150	PO1,PO5
11	1,6	Guest Lecture	1/12/2022	Mr. P. H. Lakal Managinç	OFFLINE	60	PO1,PO2,PO5
12	1,6	Guest Lecture	5/12/2022	Mr. Harshal Kate	OFFLINE	125	PO1,PO2,PO5
13	1,6	Guest Lecture	7/2/2023	Mr. Vipul Kunkar Team (OFFLINE	69	PO1,PO5, PO7
14	6	State level Tec	20/2/2023	Dr.S.G.Kandalkar HOD f	OFFLINE	200	PO1,PO2,PO3

2021-22

S.No	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	Mode	No. of students present	Relevance to POs, PSOs
1	1	Guest Lecture	10/3/2022	Mr. Arwind Wadkar Retd	OFFLINE	60	PO1,PO5
2	1	Guest Lecture	26/3/2022	Ms. Nupur Jain Vishwak	OFFLINE	100	PO1,PO5
3	2	Lab Practices :	25/09/2021	Mrs. P. S. Kardile Lectur	ONLINE	9	PO1,PO2,PO3
4	3,4,5,6	Guest Lecture	17/03/2022	Mr.Shiv Sharma Operati	OFFLINE	61	PO4,PO6,PO7
5	3,4,5,6	Guest Lecture	19/03/2022	Mrs. Geeta Kalia Mr. Am	OFFLINE	60	PO2,PO3,PO4
6	3,5	Guest Lecture	30/03/2022	Mr. Saurabh Rawat CEC	OFFLINE	61	PO1,PO2,PO4
7	1,6	Guest Lecture	26/3/2022	Mr. Rushikesh Rajurkar,	OFFLINE	60	PO1,PO2,PO5
8	1,3,6	Guest Lecture	22/04/2022	Mr.Mitua Bijalani Mindbr	OFFLINE	120	PO1,PO2,PO3
9	6	State level Tec	14/3/2022	Mrs. Kalyani Arvind Kad	OFFLINE	200	PO1,PO2,PO3

2020-21

S.No	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	Mode	No. of students present	Relevance to POs, PSOs
1	1,6	Guest Lecture	21/11/2020	Mrs. Munde S. S. Lectur	ONLINE	100	PO1,PO2,PO7
2	2	online program	28/11/2020	Mrs. P. S. Kardile Lectur	ONLINE	7	PO1,PO2,PO3
3	3	Guest Lecture	30/11/2020	Mr. Shiv Sharma Jetking	ONLINE	65	PO4,PO6,PO7
4	3,4,5,6	Guest Lecture	3/12/2020	Mr.Mitua Bijalani Mindbr	ONLINE	72	PO2,PO3,PO4

2.2 Teaching - Learning Process (160)

2.2.1 Describe Processes followed to ensure/improve quality of Teaching & Learning based on following points (25)

Institute Marks

25.00

A. Adherence to Academic Calendar (3)

Institute Marks

3.00

Academic coordinator of the institute provides an academic calendar, as shown below, which was derived from MSBTE Academic Calendar. It includes start and end of term, conduct of unit test, end semester exams theory, oral and practical examination, Internal Academic Monitoring, project reviews, seminars, workshops, alumni lectures, project contest, Sports and Gathering, Industrial Visits, Guest Lectures, Technical event, parents teacher meeting, social and cultural activities, competitions, Faculty meetings etc.

Our institution has adopted various practices and procedures for the attainment of Program Outcomes (POs) and Program Specific Outcomes (PSO's) as prescribed by MSBTE curriculum under their schemes. Institute Academic calendar is prepared based on MSBTE academic calendar and compile Institute academic calendar in-lined to the MSBTE specification/norms.

The percentage of adherence to Academic Calendar by the department is 100 %. Whenever there is necessity, required modifications in the academic calendar are prepared by the institute which are followed by the department too.

Following are the sample of MSBTE Academic Calendar



No. MSBTE/D-40/Academic Calendar/Revised/2022/ 241

Date 21 SEP 2022

Revised Academic Calendar for Academic Year 2022-23 for AICTE approved Diploma Engineering, PCI approved Diploma Pharmacy & State Government approved short term (Non-AICTE) courses

Odd Semester Academic Schedule					
S.N.	Activities	Semester Pattern (3,5,7 semester)	Newly admitted 1 st semester	Yearly Pattern (2, 3 year)	Newly admitted 1 st Year
1	Odd Semester Academic Term	August 17 – December 21, 2022	September 12 – December 24, 2022	August 17 – December 24, 2022	September 12 – December 24, 2022
2	First Class Test	October 17-19, 2022	October 17 – 19, 2022	November 07 – 11, 2022	December 12 - 17, 2022
3	Second Class Test	December 15 – 17, 2022	December 19 – 21, 2022	--	--
Examination form filling Schedule for Winter 2022 Exam					
Regular Exam forms will be made available for Odd semester students and Backlog exam forms will be made available for Odd semester, Even semester & Yearly pattern students					
S.N.	Activities	Filling Examination forms (Normal Fees)	Filling Examination forms (With Exam form fees + Late fees of Rs. 200/-)	Filling Examination forms (With Exam form fees + Penalty Rs. 1500/-)	
1	Candidate fill	September 20 – October 28, 2022	October 30 - November 02, 2022	November 04 – 06, 2022	
2	Institute fill & Confirmation	September 20 – October 29, 2022	October 30 - November 03, 2022	November 04 – 07, 2022	
3	RBTE confirmation	November 09 – 11, 2022			
Last date for RBTE confirmation of filled exam form is 11 th November, 2022 upto 5:00 PM					
Enrollment schedule for Newly admitted 1st Semester / Year and Direct 2nd year students and Winter 2022 Exam form schedule for Newly admitted 1st and 3rd semester students					
S.N.	Activities	Filling Examination forms (Normal Fees)	Filling Examination forms (With Regular fees + Late fees of Rs. 200/-)	Filling Examination forms (With regular fees + Penalty Rs. 1500/-)	
1	Candidate fill	October 10 - 28, 2022	October 30 - November 02, 2022	November 04 – 06, 2022	
2	Institute fill & Confirmation	October 10 - 29, 2022	October 30 - November 03, 2022	November 04 – 07, 2022	
3	RBTE Confirmation	November 09 – 11, 2022			
Last date for RBTE confirmation of Enrollment and filled exam form is 11 th November, 2022 upto 5:00 PM					

Examination Schedule for WINTER 2022 Exam				
S.N.	Activities	Exam schedule other than Newly admitted 1 st semester students	Exam schedule for newly admitted 1 st semester students	
1	Practical Exam	December 22 - 30, 2022	December 26 - 30, 2022	
2	Theory Exam	January 03 - 24, 2023		
3	Declaration of W- 2022 exam Result	Fourth Week of February 2023 (Tentatively)		
Even Semester Academic Schedule				
Sr. No.	Activities	Semester pattern (2, 4, 6, 8 semester)	Yearly Pattern (1, 2, 3 year)	Pharmacy (1 & 2 year)
1	Even Semester Academic Term	February 01 – May 12, 2023	December 26, 2022 – May 12, 2023	December 26, 2022 – May 12, 2023
2	First Class Test	March 15 - 17, 2023	1 st class test is already conducted in odd semester academic term	1 st class test is already conducted in odd semester academic term
3	Second Class Test	May 08 – 10, 2023	May 08 – 10, 2023	February 20 - 24, 2023
4	Third Class Test	Not Applicable	Not Applicable	May 01 – 06, 2023
Examination form filling Schedule for Summer 2023 Exam				
Regular Exam forms will be made available for Even semester & Yearly pattern students and Backlog exam forms will be made available for Odd semester, Even semester & Yearly pattern students				
S.N.	Activities	Filling Examination forms (Normal Fees)	Filling Examination forms (With Exam form fees + Late fees of Rs. 200/-)	Filling Examination forms (With Exam form fees + Penalty Rs. 1500/-)
1	Candidate fill	March 01 - 16, 2023	March 18 – 22, 2023	March 24 – 27, 2023
2	Institute fill & Confirmation	March 01 - 17, 2023	March 18 – 23, 2023	March 24 – 28, 2023
3	RBTE confirmation	March 29 - 31, 2023		
Last date for RBTE confirmation of filled exam form is 31 st March, 2023 upto 5:00 PM				
Examination Schedule for Summer 2023 Exam				
S.N.	Activities	Duration		
1	Practical Exam	May 13 – 20, 2023		
2	Theory Exam	May 24 - June 13, 2023		
3	Industrial training for AICTE approved Diploma in Engineering I-scheme students after the end of 4 th semester examination.	June 14 - July 22, 2023		
4	Declaration of S- 2023 exam Result	Fourth Week of July 2023 (Tentatively)		
Start of Academic Session 2023-24 : July 24, 2023 (Monday)				


MAHARASHTRA STATE BOARD OF TECHNICAL EDUCATION

(Autonomous) (ISO 9001:2015) (ISO/IEC 27001:2013)

 4th Floor, Govt. Polytechnic, Bldg. 49, Kherwadi, Bandra (E), Mumbai-400 051

Tel.No. : 022-62542110/188

Email:secretary@msbte.com

web:www.msbte.org.in

No. MSBTE/D-40/Academic Calendar/2021/ 135


Date 1-1 SEP 2021

Odd semester Academic schedule for academic year 2021-22 (Except Newly admitted 1st semester / year and Direct 2nd year students)

Odd Semester Academic Schedule 2021-22				
S. N.	Activities	Odd semester (3,5,7 semester)	Yearly Pattern (2, 3 year)	
1	First Term	September 15 – December 31, 2021	September 15 – December 31, 2021	
2	First Class Test	October 27-29, 2021	October 27-29, 2021	
3	Second Class Test	December 22-24, 2021	--	
WINTER 2021 Exam form filling Schedule (Except Newly admitted 1 st and 3 rd semester students)				
Regular Exam form will be made available only for 3,5,7 semester students and Backlog exam forms will be made available for 1,2,3,4,5,6,7,8 Semester & 1,2,3 Year students				
S. N.	Activities	Filling Examination forms (Normal Fees)	Filling Examination forms (With Exam form fees + Late fees of Rs. 200/-)	Filling Examination forms (With Exam form fees + Penalty Rs. 1500/-)
1	Candidate fill	October 04 -17, 2021	October 19 - 21, 2021	October 23 - 25, 2021
2	Institute fill & Confirmation	October 04 -18, 2021	October 19 - 22, 2021	October 23 - 26, 2021
3	RBTE confirmation	October 27- 29, 2021		
Last date for RBTE confirmation of filled exam form is 29 th October 2021 upto 5:00 PM				

Note:

- The Classes may be started in Online/Offline (Class Room) or Blended mode (Online as well as Offline) following the prescribed protocols / guidelines / directives from Government or local authorities if any.
- The academic schedule displayed is tentative it may change by considering prevailing COVID – 19 situation and guidelines / directives from Government if any.
- Institutes have to take measures to conduct additional instructional days for academic activities if needed.
- All type of fees & penalties shall be necessarily deposited to regional office of the Board as per the schedule declared by respective RBTE or MSBTE.
- All Practical & term work shall be completed with continuous assessment as per curriculum till the end of term.
- In unavoidable circumstances, the necessary amendment in the schedule of any activity will be notified through separate circular on MSBTE web portal.



 (Dr. Mahendra R. Chitlange)

Secretary,

M. S. Board of Technical Education, Mumbai

Copy to:

- Hon. Director, MSBTE, Mumbai – for information.
- Dy. Secretary, CDC, MSBTE, Mumbai – for information.
- Dy. Secretary, MSBTE Regional Offices, Mumbai, Pune, Nagpur, Aurangabad for necessary action.
- Desk Officer D-40, D-42 & D-43 MSBTE, Mumbai - for necessary action.



**MAHARASHTRA STATE BOARD OF TECHNICAL
EDUCATION**

(Autonomous) (ISO 9001:2015) (ISO/IEC 27001:2013)
4th Floor, Govt. Polytechnic, Bldg, 49, Kherwadi, Bandra (E), Mumbai-400 051
Tel.No.: 022-62542100/110/188
Email:secretary@msbte.com web:www.msbte.org.in

No. MSBTE/D-40/Even sem /Academic Calendar/2021/ ००७

Date 21 JAN 2022

Academic Year 2021-22 Even Term Academic Schedule

A.Y. 2021-22 Even Term academic Schedule for AICTE approved Diploma Engineering and Pharmacy courses					
S.N.	Course Pattern	Even Term academic schedule	First Class Test	Second Class Test	Third Class Test
1	Semester pattern AICTE approved Diploma Engineering courses (2,4,6,8)	February 14 - June 03, 2022	April 04 - 06, 2022	May 25 - 27, 2022	Not Applicable
2	Yearly pattern Mining courses (1,2,3)	January 24, 2022 – June 03, 2022	1 st class Test is already conducted in Odd Term of A.Y. 2021-22	May 25 - 27, 2022	Not Applicable
3	Pharmacy 1 st and 2 nd Year	January 24, 2022 – June 03, 2022	1 st class Test is already conducted in Odd Term of A.Y. 2021-22	March 07 - 12, 2022	May 23 - 28, 2022
Important Note: For State Government approved short term (Non-AICTE) courses the Even term Academic schedule will be published through separate circular.					
Summer 2022 Exam form filling Schedule for AICTE approved Diploma Engineering and Pharmacy courses					
S.N.	Activities	Filling Examination forms (Normal Fees)	Filling Examination forms (With Exam form fees + Late fees of Rs. 200/-)	Filling Examination forms (With Exam form fees + Penalty Rs. 1500/-)	
1	Candidate fill	March 29 – April 15, 2022	April 17 - 20, 2022	April 22 - 24, 2022	
2	Institute fill & Confirmation	March 29 – April 16, 2022	April 17 - 21, 2022	April 22 - 25, 2022	
3	RBTE Confirmation	April 26 - 28, 2022			
Last date for RBTE confirmation of filled exam form is 28 th April, 2022 upto 5:00 PM					
Note:					
1) For State Government approved short term (Non-AICTE) Yearly and Semester pattern courses the Summer 2022 Exam form schedule will be published through separate circular.					
2) For Summer 2022 exam Regular Exam form will be made available only for Even semester & Yearly pattern students and Backlog exam forms will be made available for Odd, Even Semester & Yearly pattern students					

Even Semester Academic Schedule			
S.N.	Activities	Even semester (2, 4, 6, 8)	Yearly Pattern
1	Second Term	22 March – 10 June, 2021	17 August 2020 – 10 June, 2021
2	First Class Test	28 – 30 April, 2021	II Class Test : 28 – 30 April, 2021
3	Second Class Test	02 – 04 June, 2021	III Class Test : 02 – 04 June, 2021
Summer 2021 Exam form filling Schedule			
Even semester Regular & backlog students, Odd Semester backlog students and Yearly pattern Regular & backlog students			
S.N.	Activities	Filling Examination forms (Normal Fees)	Filling Examination forms (With Regular fees + Late fees of Rs. 200/-)
1	Candidate fill	17 – 23 April, 2021	25 – 26 April, 2021
2	Institute fill & Confirmation	17 – 24 April, 2021	25 – 27 April, 2021
3	RBTE Confirmation	27 – 30 April, 2021	
Last date of exam form confirmation by RBTE is 30 April, 2021 upto 4:00 PM			
Summer 2021 Examination Schedule			
S.N.	Activities	Even semester Regular & backlog students, Odd Semester backlog students & Yearly pattern Regular and backlog students	
1	Practical Exam HOD confirmation of Mark sheets	12 – 21 June, 2021 On or Before 21 June, 2021	
2	Theory Exam	24 June – 14 July, 2021	
3	Industrial training for I-scheme students after completion of 4 th semester theory exam.	The schedule of industrial training will be communicated by separate circular.	
4	Declaration of Result	1 st week of August, 2021	
Start of Academic Session 2021-22 : 09 August, 2021 (Monday)			



Shri Jain Vidya Prasarak Mandal's
Rasiklal M. Dhariwal Institute of Technology



Guru Fattchand Bhavan, Shri Fattchand Marg, Chinchwad, Pune - 411 083

Academic Calendar

2022-2023

Sr. no.	Activity	Date
1.	Post SSC Diploma Engineering Admission Process by DTE	From 2 nd June 2022
2.	Institute Affiliation process	12 July- 18 July 2022
3.	Faculty Meeting (About Academic Calendar and activities)	2 nd Week July, 2022
4.	On the occasion of Remembrance Day of Late Shri. Hon. Gen. Secretary Shankarlalji Jogidasji Mutha ---- Abhivadan program and Tree Plantation	15 July 2022
5.	Semester starts (II and III year)	17 Aug. 22 – 21 Dec. 22
6.	In-Plant Students Training (All Second Year Students)	04 July 22- 14 Aug. 22
7.	Social Activity (Tree Plantation, NSS camp, Police mitra Activity in various celebrations like Ganesh utsav, dasara etc.)	3 rd week of Aug.2022
8.	Industrial Guest lecture – I (All Dept.)	4 th week Aug 2022
9.	Industrial Visit – I (All Dept.)	1 st week of Sept. 2022
10.	Guest lecture on Personality Development (Common to all)	4 th week Aug 2022
11.	Semester starts (I year)	12 Sept. 22- 24 Dec. 22
12.	Industrial Guest lecture – II	2 nd week of Sept. 2022
13.	Medical Counselling (All Students)	1 st week of Sept 2022
14.	Industrial Visit – II (All Dept.)	1 st week of Sept 2022
15.	Independence day celebration	15 Aug 2022
16.	Guest lecture – Women's Grievance (I Activity)	18 Aug 2022
17.	Guest lecture on Personality Development (Common to all)	25 Aug 2022
18.	Industrial Visit – III (All Dept.)	3 rd week of Sept 2022
19.	Guest lecture on Entrepreneurship Development (Common to all)	08 Sept 2022
20.	Engineers Day Celebration	15 Sept.2022
21.	Two days Workshop will be Arranged for All Students	Ist week of oct.22
22.	Class test- I (II and III year)	17-19 Oct. 2022

And based on MSBTE Academic Calender Institute Academic Calender is derived. Following is the sample of Institute Academic Calender.



Shri Jain Vidya Prasarak Mandal's
Rasiklal M. Dhariwal Institute of Technology



Guru Fattchand Bhavan, Shri Fattchand Marg, Chinchwad, Pune - 411 083

Academic Calendar

2022-2023

23.	Teachers Day Celebration	05 Sept. 2022
24.	Guest lecture on Entrepreneurship Development (Common to all)	08 Sept. 2022
25.	Foundation Day Celebration	08 Sept. 2022
26.	Guest lecture on Personality Development (Common to all)	17 Sept 2022
27.	Women's Grievance (II Activity)	22 Sept 2022
28.	Khande - Navami Celebration	23 Oct.2022
29.	Class test- I (I year)	17-19 Oct. 2022
30.	Industrial Visit – IV	1st week of Nov 2022
31.	Class test- II (II and III year)	15-17 Dec. 2022
32.	Faculty Meeting (discussion and feedback about activities)	02 nd week of Sept. 2022
33.	Practical / Oral exam Winter-2022 (II and III year)	22 Dec.- 30 Dec. 2022
34.	Class test- II (I year)	19-21 Dec. 2022
35.	Practical / Oral exam Winter-2022 (I year)	26 Dec.- 30 Dec. 2022
36.	Theory exam Winter-2022	15 Dec. – 05 Jan. 2023
37.	Faculty Meeting (discussion and feedback about activities)	02 nd Week Oct. 2022
38.	Second Semester start (Even Sem.)	01 Feb. -06 May 2023
39.	Faculty Meeting (Even sem. Academic activities and about Tech menia)	04 st Week Jan. 2023
40.	Talent Search	II nd week of Feb. 2023
41.	<p style="text-align: center;">Tech Mania -2023</p> <ul style="list-style-type: none"> • Inauguration and Paper Presentation • Poster Presentation - first session Mini Project Competition – Second session	13 Feb. 2023 15 Feb. 2023
42.	Fun Fair	16 Feb. 2023
43.	Entrepreneurship Development 3-Day Workshop	20-22 Feb. 2023



Shri Jain Vidya Prasarak Mandal's
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 Guru Fattchand Bhavan, Shri Fattchand Marg, Chinchwad, Pune - 411 083



Academic Calendar

2022-2023

44.	Industrial Visit – V	03 rd week of Feb 2023
45.	Industrial Guest lecture – III	03 rd week of Feb. 2023
46.	Republic Day Celebration	26 th Jan 2023
47.	Guest lecture on Entrepreneurship Development (Common to all)	03 rd week of Feb. 2023
48.	Faculty Development Program (FDP) for all teaching Staff	IV th week of Feb. 2023.
49.	Class test- I	15 -17 March. 2023
50.	Industrial Visit – VI	2 nd week of March 2023
51.	Medical Counselling	2 nd week of March 2023
52.	Class test- I	15 March- 17 March 2023
53.	Industrial Guest lecture – IV	2 nd week of March. 2023
54.	Industrial Visit – VI	1 st week of March. 2023
55.	Seminar / Conference / Projects Demo of Students	3 rd week of April 2023
56.	Class test- II	26 April -28 April 2023
57.	Practical / Oral exam Summer- 2023	07 May 2023 – 14 May 2023
58.	International Labour day / Maharashtra day	1 st May 2023
59.	Theory exam Summer -2023	17 May 2023- 06 June 2023

Table 2.2.1 Institute Academic Calendar 2022-2023(Even and Odd Semester)

B. Use of various instructional planning and delivery methods (3)

Institute Marks

3.00

Teaching and Laboratory plans are prepared for each course by the respective course teacher. The teaching plan for theory and practical shows topics or practical's to be conducted on the given date. It is prepared carefully bearing in mind the MSBTE and Institute academic calendar, holidays, schedule for unit test, sports, technical and cultural events.

Teaching methodology is also cited in it. It gives us the idea of actual teaching hours available for us and helps us to plan for extra lectures considering the possible loss of academic sessions due to unexpected causes. Various conventional and non-conventional teaching methods are implemented by each faculty to create the interest in teaching -learning process such as use of Chalk and blackboard, models and charts, PPTs, online videos, animation, simulation, etc.

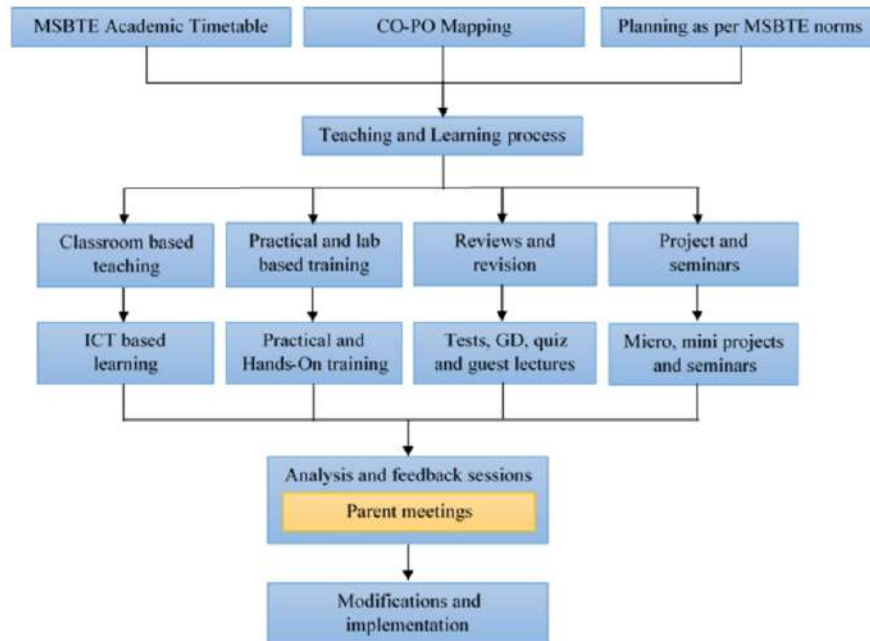


FIG 2.2.1 Processes implemented to ensure/improve quality of teaching and learning

Sample of teaching plan is as follows:-

Maharashtra State Board of Technical Education							D1
TEACHING PLAN (TP)							
Academic year: 2023-2024		Course: Data Structure Using 'C'		Course code: 22317			
Program: Computer Engg.		Semester: Third		Name of Faculty: Mrs. N. R. Dangi			
Chapter No.	CO	UO	Title/ Details	Plan (From - To & No. of Lectures.)	Actual Execution (From - To & No. of Lectures.)	Teaching Method /Media	Remarks
Unit 1 (06M) Introduction to Data Structures	22317.a Perform basic operations on array	1a 1b 1c	Introduction to Data Structures- 1.1) Concept & need of DS, Abstract Data Type (1h) 1.2) Types of Data Structures:- i) Linear Data Structures ii) Non-Linear Data Structures 1.3) Algorithm Complexity: i) Time ii) Space 1.4) Operations on Data Structures: i) Traversing ii) Searching iii) Insertion iv) Deletion v) Sorting	4Hrs IV th Week of July to V th Week of July 24/7/23 to 31/7/23	24/7/23 25/7/23 26/7/23 31/7/23	Blackboard, Chalk, Duster, Reference book	Completed ckh
Unit 2 (12M) Searching and Sorting	22317.b Apply different searching and sorting techniques	2a 2b 2c 2d	Searching and Sorting- 2.1) Searching: searching an item in a data set using following methods: i) Linear Search ii) Binary search 2.2) Sorting: Sorting of data set in an order using following methods: i) Bubble sort ii) Selection sort iii) Insertion sort iv) Quick sort v) Radix sort	8 Hrs I st Week of August to III rd Week of August 1/8/23 to 14/8/23	1/8/23 2/8/23 5/8/23 7/8/23 8/8/23 9/8/23 12/8/23 14/8/23	Blackboard, Chalk, Duster, Reference book	Completed ckh

FIG 2.2.1.1 Teaching plan of DSU

Course Delivery Methods:-

- **Classroom based Teaching:** Traditional classroom based teaching with chalk and duster, Mention CO's as per unit. Revision and Problem solving is done during lectures. The course contents are explained with the use of neat tables or figures drawn on the black board. Sometimes PPTs are also used to explain complicated figures along with videos.

- **Laboratory /Practical session-** Teaching plan for practical sessions helps us to implement the practical in time. Batches of 20 to 25 students are created for the practical session of 2 hours as per the curriculum. Experiments or software programs are done individually or in groups so students learn to work in a team. Laboratory work demonstrates how theory can be verified and implemented by hands on experiments through interpretation of results. Lab manuals or files are assessed for each course to aid learning.
- **ICT based Presentations:** Faculty members prepare ICT based presentations on various topics and are used to understand the concepts properly to the students. Videos and presentations efficiently converse the working of actual engineering topics, difficult to understand concepts, solutions and their effect.
- **Projects/Micro projects-** To get real world problem experience, the MSBTE curriculum include micro projects for each subject in the curriculum. Students prepare and submit models or charts or micro projects to the respective faculty. Group activity helps them to work effectively in a team. Micro projects and Final year projects are carried out by a group of students under the supervision of guide. Students relate the knowledge of all correlated courses in providing hardware/software solutions and present working model to guide.
- **Simulations or demonstration-** In some courses, the design and experimentation issues are also discussed in the form of demonstration or simulations. The students are thus exposed to different tools for implementation and experimentation.
- **Assignments and self-notes-** Writing assignments deepen thinking and increases students engagement with course material. Writing assignments encourages students to gather information from various sources and think more sincerely over the subjects. Importance of reference books and reference sites for preparation of self-notes are encouraged by faculty.
- **Comprehensive Viva Voce** - The Viva Voce is an important method of assessment, providing an opportunity for students to prove their ideas and knowledge, approach and understanding related to that subject. It not just helps in assessment of the students performance but also provides an opportunity to the external examiner to get feedback from the students on the performance of the department.
- **Seminar** –For micro- projects or final year projects or in paper presentation competition or related to subject activity the students collect information related to the topics given and present it in the form of oral presentation, PowerPoint presentation and comprehensive technical report. This gives them opportunity to keep themselves updated about the recent developments in their field. As our Institute conducted “TechMania” technical event every year; in it for Poster presentation and Paper presentation competitions participants prepare seminar and deliver the presentation.
- **Industrial Visits** -Industrial visits are arranged for the students every year. It is necessary that students should be aware with industrial environment and work ethics. They are wide-open to different industrial practices. This can really bring a positive change in their thinking. Students are encouraged to go through Implant training that improves an understanding of industrial requirements and gets a sense of industry background.
- **Value based education:** Subjects like Entrepreneurship Development, Environmental study are included to enhance social, ethical and value educations.
- **Online Teaching-** During the pandemic situation a lot of discussion took place on teaching and learning methodology to be implemented. Various options such as Zoom meeting, Google Meet were tried.

Teachers endured training courses on online teaching methods. Meetings were accompanied with students to guide them how to tackle with this pandemic situation and how to focus on study. Feedbacks were taken from students time to time through Google form to ensure availability of facility for online teaching. Ultimately Google meet platforms were broadly accepted for online teaching and submission of term work, assignments by students. A demonstration of practical's through Google Meet or through online videos or already available videos on YouTube were prepared by the faculty to conduct practical classes, used for effective teaching and learning process. Online quizzes were also conducted by some faculty members to ensure complete understanding of the course contents. Also, power point presentations and notes prepared by the faculty members, already available syllabus contents on internet were shared with the students.

- **Question Bank-** Question banks are prepared for each chapter of the subject in the course based on the course objectives and considering the nature of the previous question papers of the MSBTE. The previous question papers and Model Answers of MSBTE are also maintained and circulated among students.
- **Bridge course-**Bridge courses are organized for the students taking admission to direct second year level to cover up the curriculum and/or learn courses which are prerequisite to current semester courses.

Sample picture of smart classroom is as follows:-



PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
COURSE DELIVERY METHODS									
Classroom based Teaching	√	√				√	√	√	
Laboratory /Practical session	√	√	√	√			√	√	√
ICT based Presentations	√	√					√	√	√
Projects/Micro projects	√	√	√	√		√	√	√	√
Simulations or demonstration	√	√	√	√		√	√	√	√
Assignments and self-notes	√	√					√	√	
Comprehensive Viva Voce	√	√					√	√	

Seminar	√	√					√	√	
Industrial Visits	√	√	√	√		√	√	√	√
Online Teaching	√	√	√	√		√	√	√	√
Question Bank	√	√						√	√
Bridge course	√	√	√				√	√	√

FIG 2.2.1.1 Mapping of Course Delivery Methods

Following are the sample question papers which are given to students as a surprise test or practice test conducted during regular lecture/practical /extra lecture session in academics.

JPR Test on ch 1 & 2

Page No.:	YOUVA
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Total 20 Marks

- 1) Attempt any four (2 × 4 = 8M)
- a) What is command line arguments? Write a program of it.
 - b) What is Wrapper class? Explain.
 - c) Differentiate between String & StringBuffer class.
 - d) Write a program of for each loop.
 - e) Explain any 2 features of Java.
 - f) What is typecasting? Explain.
 - g) Write a program of nesting of methods.
 - h) What is bytecode?
- 2) Attempt any three (4 × 3 = 12M)
- a) What is Vector? Write Constructor & methods of Vector class.

- b) What is Constructor ? Write a program of constructor overloading !
- c) Write any 8 methods of String Class ? Explain.
- d) Write any 4 mathematical functions along with program.
- e) Write a program of 1D array.
- f) Write use of this keyword ? Write a program of this keyword.

C. Methodologies to support weak students and encourage bright students (4)

Institute Marks

4.00

- It's a common thing that the class consists of students having fluctuating grasping power. The differential teaching concept can be of much help to keep all students interested in learning. Usually based on the answers of the students to the questions asked in the class and the marks obtained by them in the previous semester/ test examination, they can be categorized as the weak or bright student.
- Students Mentor regularly conducts meetings of their given mentees regarding their progress, their problems and counsels them. Actually various other methods(such as given programming questions on taught topics) are also adopted by the teachers to identify the bright and weak students in the class and busy them with brain teasing questions during lectures and practical's.
- Staffs always encourage students to be participated in various technical curricular, non-curricular, sports, extra-curricular indoor and outdoor activities.

Identify weak students and action taken for them:-

- Students who scored less than 60% marks in their progressive class tests, internal tests, Semester tests are considered as weak students.
- Student counsellor follows their progress regularly guiding such students about attending classes, making up classes missed, prepare self-notes, getting additional help etc.
- Intimating parents to counsel their wards.
- Conduction of remedial classes.
- Built self-confidence in weak students and poor background students.
- Remedial classes and Problem solving sessions are conducted for weak students and DSY students.
- Counselling and mentoring through various sessions are organized to motivate the students, Parent meeting are held time to time to understand their concern.
- Counselling and Mentoring is conducted twice in the year for the students and if there are special cases then separate sessions are organized for such students, called their parents and counsels them.
- Conduction of extra classes to those who failed in previous semester subjects and held their practice tests to improve their results.
- Respective course teacher gave them additional assignments and important questions for their preparation.

Identify bright student and action taken for them:-

- Bright students are asked to prepare and present a topic from the curriculum, also quiz and group discussion in the classroom to improve their confidence, stage daring and understanding.
- Students are motivated to participate in various quiz and Technical competitions to develop technical, professional and soft skills.
- Assign certain topics to such students to build their confidence.
- Ask these students to come forward and explain the taught, hard topics in the lectures and in practical sessions so that weak students can also learn the same and bright students can revise the same and built their confidence, presentation, and leadership and communication skill.
- Awareness provided to appear for entrance examinations for higher studies
- Students securing First and Second rank in end semester examination are awarded with certificate of merit and cash prize.
- Students are motivated for attending workshops, seminars, paper presentation.
- Bright students are encouraged for participating in various national technical events.
- Students are motivated to secure higher marks in all examination.

SAMPLE OF ASSIGNMENT FOR WEAK STUDENTS:-

Assignment for weak students

Course – Java Programming Course code- 22412

Q. NO.	QUESTION	CO	MARKS	R/U/A
Q.1)	Attempt any four of the following	Marks 8 (4*2)		
a)	Write a program using logical operators.	C412.1	2	A
b)	Write a program using arithmetic operators.	C412.1	2	A

c)	What is command line argument? Write a program of it.	C412.2	2	R
d)	Describe vector and its constructors.	C412.2	2	U
e)	What is constructor? Write types of it.	C412.3	2	R
f)	Differentiate between method overloading and method overriding.	C412.3	2	U
Q.2)	Attempt any three of the following	Marks 12 (4*3)		
a)	What is Type casting? Explain with an example.	C412.1	4	U
b)	Describe any four features of Java.	C412.1	4	R
c)	Describe any 4 String functions along with example.	C412.2	4	A
d)	Write a program of Constructor Overloading.	C412.3	4	U
e)	Write a program of Single level Inheritance.	C412.3	4	A
Total			36	

SJVPM's R.M.D.I.O.T.
CO4I- JPR BACKLOG PRACTICE TEST PAPER ON CHAPTER 1 AND 2 (50 MARKS)

Q.A) Attempt any 7 of the following (2*7=14M)

- 1) Write and explain object oriented feature of java.
- 2) What is bytecode? Explain.
- 3) Write a program using for...each loop.
- 4) What is garbage collection.
- 5) Describe this keyword with suitable example.
- 6) What is constructor and what are its type?
- 7) Write a program of arithmetic operators?
- 8) Write a program using bitwise operators?
- 9) Describe compiled and interpreted feature of Java.
- 10) What is the use of Wrapper class?

Q.B) Attempt any 9 of the following (4*9=36M)

- 1) Describe instance Of and dot (.) operators in Java with suitable example.
- 2) What is JVM? Explain.
- 3) Write and explain any 4 methods of Vector class.
- 4) Differentiate between Vector and Array.
- 5) Write and explain any 4 methods of StringBuffer class.
- 6) Write and explain any 4 mathematical functions.
- 7) What is type casting? Explain its types.
- 8) Write and explain platform independent and portability feature of java.
- 9) What is access specifiers in Java?
- 10) Write a program of constructor overloading?
- 11) Write and explain constructor of Vector.
- 12) What is command line arguments? Write a program of it.

SJVPM's R.M.D.I.O.T.
CO4I- JPR BACKLOG PRACTICE TEST PAPER ON CHAPTER 1 AND 2 (50 MARKS)

Q.A) Attempt any 7 of the following (2*7=14M)

- 1) Write and explain object oriented feature of java.
- 2) What is bytecode? Explain.
- 3) Write a program using for...each loop.
- 4) What is garbage collection.
- 5) Describe this keyword with suitable example.
- 6) What is constructor and what are its type?
- 7) Write a program of arithmetic operators?
- 8) Write a program using bitwise operators?
- 9) Describe compiled and interpreted feature of Java.
- 10) What is the use of Wrapper class?

Q.B) Attempt any 9 of the following (4*9=36M)

- 1) Describe instanceof and dot (.) operators in Java with suitable example.
- 2) What is JVM? Explain.
- 3) Write and explain any 4 methods of Vector class.
- 4) Differentiate between Vector and Array.
- 5) Write and explain any 4 methods of StringBuffer class.
- 6) Write and explain any 4 mathematical functions.
- 7) What is type casting? Explain its types.
- 8) Write and explain platform independent and portability feature of java.
- 9) What is access specifiers in Java?
- 10) Write a program of constructor overloading?
- 11) Write and explain constructor of Vector.
- 12) What is command line arguments? Write a program of it.



M T W T F S S	
Page No.:	YOUVA
Date:	

DSU Assignment No. 1

- 1) Sort the following data using Selection Sort technique.

5	9	2	10	1
---	---	---	----	---

- 2) Write a program in 'C' of Bubble sort technique.

- 3) Write a program of Selection Sort technique.

- 4) Sort the following data in descending order using Radix Sort technique.

100	59	78	4	3456
-----	----	----	---	------

5) Write a program of Insertion Sort technique in 'C'.

6) Sort the following data using Quick Sort technique.

11	10	15	9	20	25	18
----	----	----	---	----	----	----

M T W T F S S	
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Date:	

DSU Assignment No. 2

- 1) Write a program in 'c' to perform insertion operation on an array.
- 2) Write a program in 'c' to perform deletion operation on an array.
- 3) Search an element 20 in following array using linear Search technique.

5	19	40	20	25
---	----	----	----	----

- 4) Search an element 10 in following array using Binary Search technique.

10	5	9	20	15	18
----	---	---	----	----	----

5) Write a program in C of linear search technique.

6) Write a program of Binary Search technique in 'C'.

CO3I (2019-2020)

SUBJECT- DSU (22317)

STAFF NAME- MRS. N.R.DANGI

Roll no	Name	Group No.	Project Title	Student Activity Assignments				
				1	2	3	4	5
1	Roshan.Rameshlal.Dhoka.	A	STACK & QUEUE	✓ B	✓ B	✓ A	✓ A	✓ A
2	Ravina Shrikant Chavan			✓ A	✓ A	✓ A	✓ A	✓ A
3	Dipali Manoj Rathod			✓ A	✓ A	✓ A	✓ A	✓ A
4	Monika Maruti Meshram			✓ B	✓ B	✓ A	✓ A	✓ A
57	Kartik Satish Kashid			✓ B	✓ B	✓ A	✓ A	✓ A
5	Nikita Ajay Chaudhari	B	BINARY SEARCH TREE	✓ A	✓ A	✓ A	✓ A	✓ A
6	Manasi Shivaji Bhosale			✓ A	✓ A	✓ A	✓ A	✓ A
7	Jyotsana Balkrushna Dige			✓ B	✓ B	✓ A	✓ A	✓ A
8	Kajal Kishor Bhosale			✓ A	✓ A	✓ A	✓ A	✓ A
61	Gaytari Gajanan kudekar			✓ B	✓ B	✓ A	✓ A	✓ A
9	Yogeshwari Arun Pawar	C	BANK MANAGEMENT SYSTEM	✓ B	✓ B	✓ A	✓ A	✓ A
10	Dhanashri Anil Bansode			✓ B	✓ B	✓ A	✓ A	✓ A
11	Omkar Shinde			✓ B	✓ B	✓ A	✓ A	✓ A
12	Girish Gaikwad			✓ B	✓ B	✓ A	✓ A	✓ A
62	Prajakta Kailas Valunj			✓ A	✓ A	✓ A	✓ A	✓ A
13	Tushar.Tukaram.Bhosale	D	CIRCULAR QUEUE	✓ A	✓ A	✓ A	✓ A	✓ A
14	Aniket Ganesh Pawar			✓ A	✓ B	✓ A	✓ A	✓ A
15	Yogesh.Ramdas.Dongre			✓ C	✓ B	✓ A	✓ A	✓ A
16	Yash.Sandesh.Chordiya.			✓ A	✓ B	✓ A	✓ A	✓ A
58	Sarvesh Pujare			✓ B	✓ A	✓ A	✓ A	✓ A
17	Priyanka Bhivaji Chinchwade	E	LINKED LIST	✓ A	✓ A	✓ A	✓ A	✓ A
18	Jyoti Shantaram Lonari			✓ A	✓ A	✓ A	✓ A	✓ A
19	Riya Raju Kamble			✓ B	✓ B	✓ A	✓ A	✓ A
20	Shubhangi Waghmare			✓ B	✓ B	✓ A	✓ A	✓ A
64	Sandhya Laxman Wavhale			✓ A	✓ A	✓ A	✓ A	✓ A
21	Aishwarya Prakash Kammar	F	QUEUE USING ARRAY	✓ B	✓ A	✓ A	✓ A	✓ A
22	Damini Raju Pawar			✓ A	✓ B	✓ A	✓ A	✓ A
23	Atharva.Balu.Kadam			✓ A	✓ B	✓ A	✓ A	✓ A
24	Smitish.Shirish kurve			✓ A	✓ B	✓ A	✓ A	✓ A
59	Hrishikesh Ghadde			✓ B	✓ B	✓ A	✓ A	✓ A



25	Faizan.Sameer.Shikalgar	G	BANK MANAGEMENT	✓A	✓A	✓A	✓A	✓A
26	Swati Baliram Khurpe			✓A	✓A	✓A	✓A	✓A
27	Apurva Subhash Panchbudhe			✓B	✓B	✓A	✓A	✓A
28	Ganesh Bapu Arsul			✓B	✓B	✓A	✓A	✓A
60	Om Vinayak Kurkute			✓B	✓B	✓A	✓A	✓A
29	Sakshi Baliram Bhosale	H	HOSPITAL MANAGEMENT SYSTEM	✓A	✓B	✓A	✓A	✓A
30	Shweta Ganesh Lashkare			✓A	✓B	✓A	✓A	✓A
31	Sagar Dubal			✓B	✓B	✓A	✓A	✓A
32	Namrata Anil Chaudhari			✓B	✓B	✓A	✓A	✓A
63	Atul Kalish Chavan	I	INFIX EXPRESSION TO POSTFIX	✓B	✓B	✓A	✓A	✓A
33	Snehal Shashikant Naikare			✓B	✓B	✓A	✓A	✓A
34	Rohit.Suresh.Palekar			✓B	✓B	✓A	✓A	✓A
35	Atharva.Sagar.Bendre			✓B	✓B	✓A	✓A	✓A
36	Ruchika Vikas Satras			✓B	✓B	✓A	✓A	✓A
37	Yellesh.Erappa.Kambleru	J	SORTING TECHNIQUES	✓B	✓B	✓A	✓A	✓A
38	Pratik.Vilas.Jadhav			✓B	✓B	✓A	✓A	✓A
39	Vaibhav.Bhausahab.Thorat			✓A	✓B	✓A	✓A	✓A
40	Omkar.Laxman.Kunjir	K	ARRAY OF OPERATION	✓B	✓B	✓A	✓A	✓A
41	Amir.Shahid.Khan			✓B	✓B	✓A	✓A	✓A
42	Vipul sachin prayag			✓B	✓B	✓A	✓A	✓A
43	Subrato.Bishnu.Ghorai			✓B	✓B	✓A	✓A	✓A
44	Sujay Bhor			✓B	✓B	✓A	✓A	✓A
66	Aniket Ghules	L	SUPER MARKET	✓B	✓B	✓A	✓A	✓A
45	Diksha Dilip Jondhale			✓B	✓B	✓A	✓A	✓A
46	Pranali Ramdas Rane			✓A	✓B	✓A	✓A	✓A
47	Janhavi Mahadev Mane			✓B	✓B	✓A	✓A	✓A
48	Aaliya Rahimtulla Mulla			✓B	✓B	✓A	✓A	✓A
65	Shraddha Mashale	M	DOUBLE ENDED QUEUE	✓B	✓B	✓A	✓A	✓A
49	Abhaycharan.Raju.Favde			✓B	✓B	✓A	✓A	✓A
50	Rohan.Deepak.Pawar			✓B	✓B	✓A	✓A	✓A
51	Suraj.Suresh.Naikvade			✓B	✓B	✓A	✓A	✓A
52	Uttam.Subhash.Chopde			✓B	✓B	✓A	✓A	✓A
53	Abhijeet.Kedarnath.Kadam	N	DOUBLE LINKED LIST	✓B	✓B	✓A	✓A	✓A
54	Sohail.Javed.Tamboli			✓B	✓B	✓A	✓A	✓A
55	Yash.Ravindra.Shitole			✓B	✓B	✓A	✓A	✓A
56	Sujit Kailas Atawe			✓B	✓B	✓A	✓A	✓A



N.R.
Name & Sign of Staff
Mrs. N. R. Dargi

AK
Name & Sign of H.O.D.
Mrs. A. A. Deshpande

13/4/2020

JPR Q.P. 50 Marks

- Q. 1) Attempt any 5. (2 x 5 = 10 m)
- 1) Define error & state its types.
 - 2) Write the syntax & example of drawRect method.
 - 3) What is the use of throws keyword.
 - 4) What is synchronization.
 - 5) Write constructor & methods of Font class.
 - 6) Write the syntax & example of drawOval method.
 - 7) Write a program to display message on Applet window.
- Q. 2) Attempt any 10. (4 x 10 = 40 m)
- 1) Define exception. State built-in exceptions.
 - 2) Write a prog using yield(), stop() & sleep() methods of Thread class.
 - 3) Explain life cycle of an Applet.
 - 4) Explain <param> tag with an example.
 - 5) Explain life cycle of a Thread.
 - 6) Explain <applet> tag with all its major attributes.
 - 7) Explain thread priority & its methods.
 - 8) Write the syntax

the syntax & example of drawPolygon
& drawArc methods.

- 9) Differentiate between Applet & Application.
- 10) Explain try, catch, finally & throw keywords.
- 11) Write a prog to throw an user defined exception.
- 12) Write a prog using Runnable interface.
- 13) Write an applet prog to display three circles one below the other & fill them with red, green & yellow color respectively.
- 14) W.A.P. to create two threads one thread will print even no. between 1 to 50 & other will print odd numbers between 1 to 50.
- 15) Write an applet program to display three concentric circles on screen.

— Best Of Luck —

Remedial Course Pre-Paper

M T W T F S S	
Page No.:	YOUVA
Date:	

PYTHON [22616] 25 Marks

- 1) Attempt any 5. (5x2M = 10M)
- Explain identity operators in Python.
 - Write a program using if-elif-else keyword.
 - How to apply comments in Python!
 - Explain Python's Bitwise operators!
 - What is the use of string modulo (%) operator! Explain.
 - Explain local & global variables.
 - Write general syntax of try-except-finally block.

- Attempt any 5. (5x3 M = 15M)
- a) How to create user defined functions in Python? Explain with an example.
 - b) Explain slicing operation (:) in List with an example.
 - c) Explain the use of random function with an example.
 - d) Explain package Numpy with an example.
 - e) Write a program of multilevel inheritance in Python.
 - f) Explain the use of format () method with example.
 - g) Explain raise keyword with an example.
 - h) Explain the use of keyword pass with an example.

Remedial Course Post Paper

M	T	W	T	F	S	S
Page No.:						YOUVA
Date:						

PYTHON [22616] 25 Marks

- Q. 1) Attempt any 5. (5 x 2M = 10M)
- Explain `print()` function with its arguments.
 - What is Class? How to declare class in Python.
 - What is Kwargs in Python? Explain.
 - How to declare dictionary in Python.
 - Differentiate between List & Tuple.
 - What is the use of range function? Explain.
 - How to use short hand if-else statement in Python. Explain with an example.

- Q. 2) Attempt any 5. (5 x 3M = 15M)
- a) Explain 4 built-in tuple functions in Python with an example.
 - b) Explain building blocks of Python.
 - c) Explain method overriding in Python with an example.
 - d) Explain the use of try-except block with an example.
 - e) How to create abstract methods in Python? Explain with example.
 - f) Explain from...import statement.
 - g) Explain the use of lambda expression with example.
 - h) Explain any 4 set operations.

SJVPM's R.M.D.I.O.T. PRELIM EXAM- DSU QUESTION PAPER (70 MARKS)

1. Attempt any FIVE of the following : 10M

- (a) List any four operations on data structure.
- (b) Enlist queue operations condition.
- (c) Define : (i) Binary tree (ii) Binary search tree
- (d) Show the memory representation of stack using array with the help of a diagram.
- (e) Define given two types of graph and give example. (i) Direct graph (ii) Undirected graph
- (f) Differentiate between linear and non-linear data structures on any two parameters.
- (g) Convert the following infix expression to its prefix form using stack $A + B - C * D / E + F$

2. Attempt any THREE of the following : 12M

- (a) Describe the working of Binary search with an example.
- (b) Write a program of selection sort technique.
- (c) Draw and describe construction of circular queue.
- (d) Describe indegree and outdegree of a graph with example.

3. Attempt any THREE of the following : 12M

- (a) Write C program for performing following operations on array : insertion, display.
- (b) Evaluate the postfix expression : $5, 6, 2, +, *, 12, 4, /, -$ Show diagrammatically each step of evolution using stack.
- (c) Write a program of Insertion sort technique.
- (d) Define the term recursion. Write a program in C to display factorial of a entered number using recursion.

4. Attempt any THREE of the following : 12M

- (a) Write a program in 'C' to insert an element in a linear queue.
- (b) Draw the tree structure of the following expressions: (i) $(2a + 5b)^3 * (x - 7y)^4$ (ii) $(a - 3b) * (2x - y)^3$
- (c) Write an algorithm to insert an element at the beginning and at end of linked list.
- (d) Evaluate the following prefix expression : $- * + 4 3 2 5$ show diagrammatically each step of evaluation using stack.
- (e) Write an algorithm to delete a node from the beginning of a linked list.

5. Attempt any TWO of the following : 12M

- (a) Sort the following numbers in ascending order using quick sort. Given numbers 50, 2, 6, 22, 3, 39, 49, 25, 18, 5.
- (b) Describe in-order, pre-order and post-order methods with an example.
- (c) Write an algorithm for performing push and pop operations on stack.

6. Attempt any TWO of the following : 12M

- (a) Sort the following numbers in ascending order using Bubble sort. Given numbers : 29, 35, 3, 8, 11, 15, 56, 12, 1, 4, 85, 5 & write the output after each interaction.
- (b) Describe the concept of linked list with the terminologies: node, next pointer, null pointer and empty list.
- (c) Describe working of selection sort method. Also sort given input list in ascending order using selection sort input list – 55, 25, 5, 15, 35.

Quality of teaching is a very important factor for quality learning of students. Following points are considered to certify a good quality classroom teaching.

- Classroom atmosphere is made interactive. Class rooms are spacious enough, with proper ventilation for circulation of fresh air, to accommodate 60-70 students and are well furnished with lights and fans.
- Smart Board, projectors etc. are used for teaching purposes and for effective delivery of complex topics. Smart board software helps Faculty members to bring teachings to existence with rich, powerful activities that grasps student's attention, coming together real time valuation and real world experience into the learning process.
- Real components and models are taken by the faculty to the class room to determine the conceptions in a perfect way to the students.
- Real time examples are taught, mentioned in the form of videos.
- Principal and Head of Department regularly visit classes suddenly to observe the teaching process and express their recommendations and appreciations to the Faculty member.
- Students are motivated to present a topic of their own for few minutes during class hours.
- Well-structured lesson plans are prepared / revised for all theory and practical courses on a period to period basis, analysed by HOD.
- Various social media groups are formed to effectively communicate with students, to give assignments, notes to students.

Sample photo of classroom is as follows:-



E. Conduct of experiments (3)

Institute Marks

3.00

- Laboratories are well furnished, ventilated and developed properly. Proper software installation is done on computer system.
- Course plans, Lab plans are prepared for each laboratory course before the commencement of each semester.
- The course file includes syllabus, course plan, and list of experiments to be conducted, software/Equipment/Components required, experimental procedures and also additional experiments beyond the syllabus. Regular assessment of the student's performance is done and record is maintained.
- Subject wise lab manual developed by MSBTE or subject practical file developed by the faculty is used for effective teaching learning process.
- The students are instructed about the experimental procedures and safety measures before the commencement of practical session is checked. Batch wise practical is done. 20-25 students are there in a batch. Explanation of the experiment is done by the respective subject teacher and teachers ask the students to perform the practical. Additional practical's are also given to the students by the teacher to fulfil their knowledge and gain the practical knowledge.
- The additional experiments beyond the curriculum content are given to students for increasing their practical knowledge, programming knowledge and design capability.
- The students are encouraged to do micro projects relevant to the curriculum to enhance their practical knowledge. All laboratories have excellent facilities. For the experiments detailed instruction manuals are provided. The observations are checked and verified by faculty and record books are maintained systematically.

For AICTE Diploma Courses

D-2
With Effect From 2017-18

Maharashtra State Board of Technical Education, Mumbai
Name of Institute :- R.M. D. Institute Of Technology, Chinchwad (0363)

LABORATORY PLANNING

Academic Year:- 2022-2023
Course:-Java Programming(JPR)
Semester :-CO4I
Batch :-A/B/C

Program:- Computer Engineering (CO)
Course Code:-22412
Name of Faculty:-Mrs. N. R. Dangi

Course Outcomes (COs):

- CO1: Develop programs using object oriented methodology in Java.
CO2: Apply concept of inheritance for code reusability.
CO3: Develop programs using multithreading.
CO4: Implement Exception Handling.
CO5: Develop programs using graphics and applet.
CO6: Develop programs for handling I/O and file streams.

Sr. No	CO	PrO	Name of Experiment/ Assignment/Sheet/Job/ProjectActivity	Planned Date		Actual Date	Remark
				From	To		
1	CO-1	PrO-1	Setup a java Programming Development by using: a) Command Prompt. (Class path) b) path setup c) Any IDE (Eclipse, Jcreator)	A-2/2/2023	A-6/2/2023	A-2/2/2023	Completed
				B-1/2/2023	B-3/2/2023	B-1/2/2023	
				C-3/2/2023	C-7/2/2023	C-3/2/2023	
2	CO-1	PrO-2	Test the JDE setup by implementing a small program.	A-2/2/2023	A-6/2/2023	A-2/2/2023	Completed
				B-1/2/2023	B-3/2/2023	B-1/2/2023	

3	CO-1	PrO-3	Develop Program to demonstrate use of if statement and its different forms.	C-3/2/2023	C-7/2/2023	C-3/2/2023	Completed
				A-6/2/2023	A-9/2/2023	A-6/2/2023	
				B-3/2/2023	B-8/2/2023	B-3/2/2023	
				C-7/2/2023	C-10/2/2023	C-7/2/2023	
4	CO-1	PrO-4	Develop Program to demonstrate use of a) Switch -case statement b) Conditional if (? :).	A-9/2/2023	A-13/2/2023	A-9/2/2023	Completed
				B-8/2/2023	B-10/2/2023	B-8/2/2023	
				C-10/2/2023	C-14/2/2023	C-10/2/2023	
5	CO-1	PrO-5	Develop Program to demonstrate use of Looping statement 'for'.	A-13/2/2023	A-16/2/2023	A-13/2/2023	Completed
				B-10/2/2023	B-15/2/2023	B-10/2/2023	
				C-14/2/2023	C-17/2/2023	C-14/2/2023	
6	CO-1	PrO-6	Develop Program to demonstrate use of 'while', do-while'.	A-16/2/2023	A-20/2/2023	A-16/2/2023	Completed
				B-15/2/2023	B-17/2/2023	B-15/2/2023	
				C-17/2/2023	C-20/2/2023	C-17/2/2023	
7	CO-1	PrO-7	Develop Program for implementation of implicit type casting in Java. part-I	A-20/2/2023	A-27/2/2023	A-20/2/2023	Completed
				B-17/2/2023	B-28/2/2023	B-17/2/2023	
				C-20/2/2023	C-27/2/2023	C-20/2/2023	
8	CO-1	PrO-	Develop Program for implementation of	A-20/2/2023	A-27/2/2023	A-20/2/2023	



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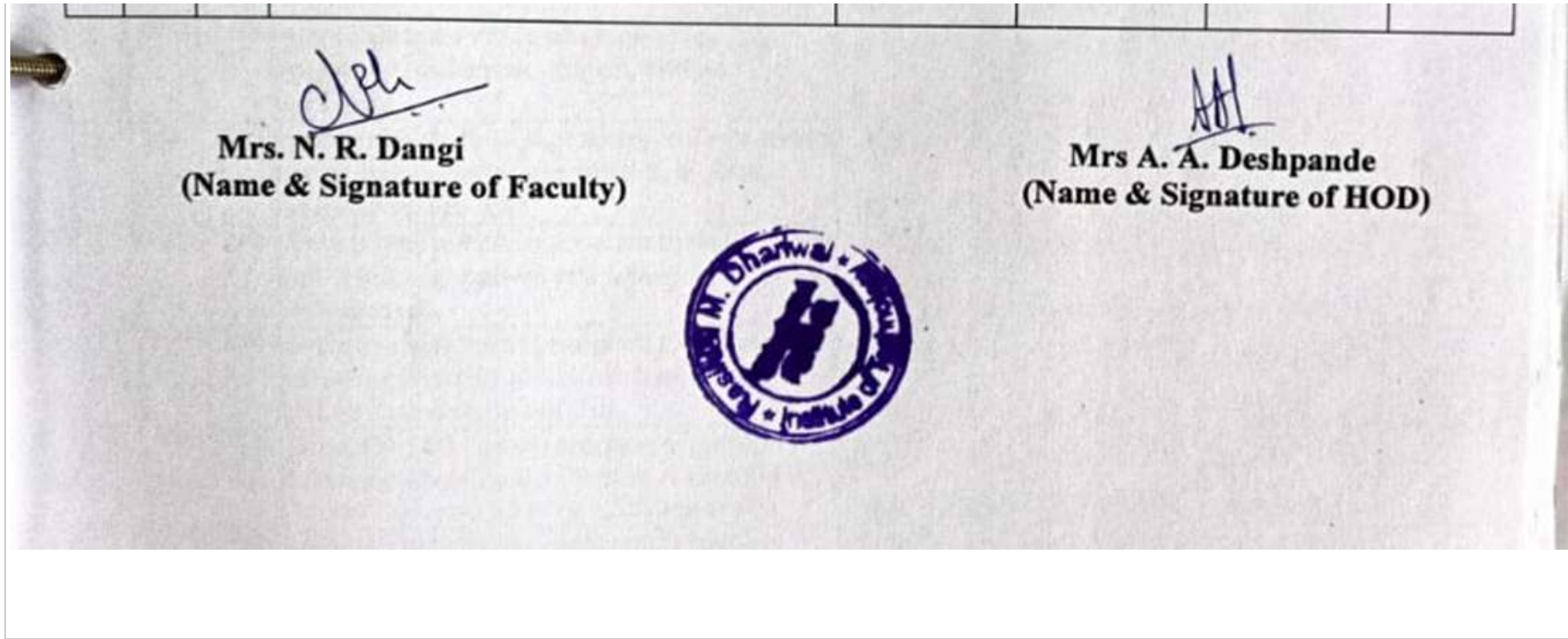
		8	implicit type casting in Java. part-II	B-17/2/2023	B-28/2/2023	B-17/2/2023	C
				C-20/2/2023	C-27/2/2023	C-20/2/2023	
9	CO-1	PrO-9	Develop Program for implementation of explicit type conversion in Java.	A-27/2/2023	A-1/3/2023	A-27/2/2023	C
				B-28/2/2023	B-1/3/2023	B-28/2/2023	
				C-27/2/2023	C-28/2/2023	C-27/2/2023	
10	CO-1	PrO-10	a)Develop Program for implementation of constructor b)Develop Program for implementation of constructor	A-1/3/2023	A-6/3/2023	A-1/3/2023	C
				B-1/3/2023	B-3/3/2023	B-1/3/2023	
				C-28/2/2023	C-3/3/2023	C-28/2/2023	
11	CO-1	PrO-11	Develop Program for implementation of different functions of String Class. Part -I.	A-6/3/2023	A-9/3/2023	A-6/3/2023	C
				B-3/3/2023	B-7/3/2023	B-3/3/2023	
				C-3/3/2023	C-6/3/2023	C-3/3/2023	
12	CO-1	PrO-12	Develop Program for implementation of different functions of String Class. Part -II.	A-6/3/2023	A-9/3/2023	A-6/3/2023	C
				B-3/3/2023	B-7/3/2023	B-3/3/2023	
				C-3/3/2023	C-6/3/2023	C-3/3/2023	
13	CO-1	PrO-13	Develop Program for implementation of Array in Java.	A-9/3/2023	A-13/3/2023	A-9/3/2023	C
				B-7/3/2023	B-8/3/2023	B-7/3/2023	
				C-6/3/2023	C-7/3/2023	C-6/3/2023	
14	CO-1	PrO-14	Develop Program for implementation of Vectors in Java	A-13/3/2023	A-20/3/2023	A-13/3/2023	C
				B-8/3/2023	B-10/3/2023	B-8/3/2023	
				C-7/3/2023	C-10/3/2023	C-7/3/2023	
15	CO-1	PrO-15	Develop Program for implementation of Wrapper Class to convert primitive in to object.	A-20/3/2023	A-23/3/2023	A-20/3/2023	C
				B-10/3/2023	B-14/3/2023	B-10/3/2023	
				C-10/3/2023	C-14/3/2023	C-10/3/2023	
16	CO-1	PrO-16	Develop Program for implementation of Wrapper Class to convert object in to primitive.	A-20/3/2023	A-23/3/2023	A-20/3/2023	C
				B-10/3/2023	B-14/3/2023	B-10/3/2023	
				C-10/3/2023	C-14/3/2023	C-10/3/2023	
17	CO-2	PrO-17	Develop a program which implements the concept of overriding	A-23/3/2023	A-27/3/2023	A-23/3/2023	C
				B-14/3/2023	B-24/3/2023	B-14/3/2023	

				C-14/3/2023	C-20/3/2023	C-14/3/2023	
18	CO-2	PrO-18	Develop Program for implementation of single & multilevel inheritance.	A-27/3/2023	A-29/3/2023	A-27/3/2023	C
				B-24/3/2023	B-28/3/2023	B-24/3/2023	
				C-20/3/2023	C-21/3/2023	C-20/3/2023	
19	CO-2	PrO-19	Develop Program for implementation multiple inheritance	A-29/3/2023	A-3/4/2023	A-29/3/2023	C
				B-28/3/2023	B-29/3/2023	B-28/3/2023	
				C-21/3/2023	C-24/3/2023	C-21/3/2023	
20	CO-2	PrO-20	Develop Program to import different classes in packages.	A-3/4/2023	A-6/4/2023	A-3/4/2023	C
				B-29/3/2023	B-31/3/2023	B-29/3/2023	
				C-24/3/2023	C-27/3/2023	C-24/3/2023	
21	CO-3	PrO-21	Develop Program for implementation of multithreading operation Part -I.	A-6/4/2023	A-10/4/2023	A-6/4/2023	C
				B-31/3/2023	B-5/4/2023	B-31/3/2023	
				C-27/3/2023	C-28/3/2023	C-27/3/2023	
22	CO-3	PrO-22	Develop Program for implementation of multithreading operation Part -II.	A-6/4/2023	A-10/4/2023	A-6/4/2023	C
				B-31/3/2023	B-5/4/2023	B-31/3/2023	
				C-27/3/2023	C-28/3/2023	C-27/3/2023	
23	CO-4	PrO-23	Develop Program for implementation of try, catch block. Part -I.	A-10/4/2023	A-12/4/2023	A-10/4/2023	C
				B-5/4/2023	B-12/4/2023	B-5/4/2023	
				C-28/3/2023	C-31/3/2023	C-28/3/2023	
	CO-4	PrO-	Develop Program for implementation of	A-10/4/2023	A-12/4/2023	A-10/4/2023	C



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24		24	try, catch block. Part-II.	B-5/4/2023	B-12/4/2023	B-5/4/2023	C
25	CO-4	PrO-25	Develop Program for implementation of try catch and finally block	C-28/3/2023	C-31/3/2023	C-28/3/2023	
				A-10/4/2023	A-12/4/2023	A-10/4/2023	C
				B-5/4/2023	B-12/4/2023	B-5/4/2023	
				C-28/3/2023	C-31/3/2023	C-28/3/2023	
26	CO-4	PrO-26	Develop Program for implementation of throw, throw clause. Part-I.	A-12/4/2023	A-13/4/2023	A-12/4/2023	C
				B-12/4/2023	B-18/4/2023	B-12/4/2023	
				C-31/3/2023	C-11/4/2023	C-31/3/2023	
27	CO-4	PrO-27	Develop Program for implementation of throw, throw clause. Part-II.	A-12/4/2023	A-13/4/2023	A-12/4/2023	C
				B-12/4/2023	B-18/4/2023	B-12/4/2023	
				C-31/3/2023	C-11/4/2023	C-31/3/2023	
28	CO-5	PrO-28	Develop minimum two basic Applets. Display output with applet viewer and browser. a) Develop program on basic applet. b) Develop program using control loops in applets	A-13/4/2023	A-17/4/2023	A-13/4/2023	C
				B-18/4/2023	B-19/4/2023	B-18/4/2023	
				C-11/4/2023	C-18/4/2023	C-11/4/2023	
29	CO-5	PrO-29	Write a program to create animated shape using graphics and applets. Using following shapes:- a) Line and Rectangles. b) Circle and eclipses. C) Arcs. d) Polygons with fillpolygon method.	A-17/4/2023	A-20/4/2023	A-17/4/2023	C
				B-19/4/2023	B-21/4/2023	B-19/4/2023	
				C-18/4/2023	C-21/4/2023	C-18/4/2023	
30	CO-5	PrO-30	Develop program to draw following shapes,graphics and applets. a)Cone b) Cylider c) Cube d) Square inside a circle	A-20/4/2023	A-24/4/2023	A-20/4/2023	C
				B-21/4/2023	B-25/4/2023	B-21/4/2023	
				C-21/4/2023	C-25/4/2023	C-21/4/2023	
31	CO-6	PrO-31	Develop Program for implementation of I/O stream classes.	A-24/4/2023	A-3/5/2023	A-24/4/2023	C
				B-25/4/2023	B-3/5/2023	B-25/4/2023	
				C-25/4/2023	C-2/5/2023	C-25/4/2023	
32	CO-6	PrO-32	Develop Program for implementation of file stream classes.	A-24/4/2023	A-3/5/2023	A-24/4/2023	C
				B-25/4/2023	B-3/5/2023	B-25/4/2023	
				C-25/4/2023	C-2/5/2023	C-25/4/2023	



F. Continuous Assessment in the laboratory (3)

Institute Marks

3.00

- As per MSBTE guidelines all practical courses are continuously assessed for an internal maximum of 10 or 25 or 50 marks.
- Students are continuously assessed in the lab through Completion of the experiment and Periodic submission of experiment/manual/observation/record.
- Continuous assessment system is also implemented for assessment of laboratory work. The assessment is done on the basis of submission of laboratory records, understanding of the experiment through oral viva voce questions and participation in performing the experiment.
- Neatness of the course file or manual or record book having additional weightage in the assessment.
- Each and every student submits the write up on the experiment performed. It consists of general information, related concepts, and procedure for the conduct of experiment along with figure of the setup, observations, calculations, results, graphs and conclusion, question- answers etc.
- Questions are asked to verify the understanding of the student. Cognitive, Psychomotor and Affective domain parameters are considered for the assessment provided by MSBTE. As per the rubrics developed, the submission of the student is evaluated regularly and record is maintained in the continuous assessment sheet.
- Knowledge, presentation, in time submission and overall performance of the student is taken into account while giving the marks out of 10 or 25 or 50.

Maharashtra State Board of Technical Education

D3

PROGRESSIVE ASSESSMENT OF THEORY

Academic year : 2022-2023

Program: CO4I

Course: JPR

Course Code: 22412

Sem ester: FOURTH

Name of Faculty: Mrs. N. R. Dangi

Roll No.	Enrolment No.	Exam Seat No.	Name of the student	Experiment / Job / Assignment / Sheet/ Activity of Project (Marks out of 10 per experiment)																							Total Marks out of (10 x No. of Expt.)	PA Marks of Practical Converted According to T.E SCHEME (Max Marks.)
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		
1	190391	190391	SHAIKH REHAN RAUF	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	9	9	8	9	9	230	50	
2	2103630072	190413	SHAHANE GOURI ANKUSH	9	9	9	9	9	9	9	9	9	9	9	9	8	9	9	8	9	9	8	9	8	9	9	203	44
3	2103630073	190414	UKIRDE NIKITA HANMANT	9	9.2	9	9.2	9	9.2	9	9.2	9	9.2	9	9.2	9	9.2	8.6	9.2	9.2	9.2	9.2	9.2	9.2	9.2	209.4	46	
4	2103630074	190415	JOSHI ADITI RAHUL	8.4	8.4	8.4	9	9	9	9	9	9	9	9	9	8.4	8.4	8.4	8.4	8.4	8.4	9	8	9	9	200	43	
5	2103630075	190416	CHOUDHARI SUMAN SANTOSH	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	161	35	
6	2103630076	190417	JADHAV KALYANI RAMESH	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	8	8	162	35	
7	2103630077	190418	GURME SWARAJ VINOD	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8	8	6	190	41	
8	2103630078	190419	SHINDE ADITYA GAUTAM	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	115	25	
9	2103630079	190420	KALURKAR VISHAL VINODRAO	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	156	34	
10	2103630080	190421	DUDHANI SNEHAL SUDHAKAR	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	184	40	
11	2103630081	190422	MAHAJAN TEJAS SUNIL	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	133	29	
12	2103630082	190423	ADITYA SUNIL BELHEKAR	6	7	6	7	6	7	4	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	155	34	
13	2103630083	190424	SHAIKH SANTIYA RASUL	9	9	9	9	9	9	9	9	9	9	9	9	7	7	7	7	7	7	7	8	8	8	188	41	
14	2103630084	190425	NARKHEDE SHRUTI SUNIL	9	9.2	9	9.2	9	9.2	9	9.2	9	9	9	9.2	9	9.2	9	9.2	9.2	9.2	9.2	9.2	9.2	9.2	209.6	46	
15	2103630085	190426	VIJAYALAXMI RAJENDRA BARGE	8	8	8	8	8	9	9	9	8	9	9	9	9	9	9	9	9	9	9	9	9	9	201	44	
16	2103630087	190427	SALAVE ROSHAN RAJKUMAR	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	138	30	
17	2103630088	190428	KOLI PRAJAKTA ASHOK	8	8	8	8	8	7	7	7	7	7	7	7	8	8	8	8	8	8	8	8	8	8	177	38	

Name & Signature of Faculty

Name & Signature of HOD

G. Student feedback of teaching learning process and action taken (6)

- The feedback from the students is collected in a semester to improvise the teaching learning process. Students give their feedback regarding the way of course subject taught by the faculty and other problems handled in the classroom.
- At the end of the semester, all the students are required to fill a feedback-form apprising the faculty using a scale from low to high.
- Lecture classes are monitored by Principal and Head of the Department. They give practical comments to improve the quality of teaching and the teaching- learning process or appraising the staff.
- Counselling by the respective HOD for those faculty members who have secured low scores and negative comments, if any, in the feedback. This motivates them to improve their skills and abilities.
- Feedback is based on the parameters such as Regularity in conduct of classes, Clarity in teaching, Presentation Skills and confidence etc. Ability to maintain discipline, use of modern teaching Aids, Overall performance etc.
- Feedback given by the students is analysed and discussed in the departmental meeting and remedial action is planned if required.
- Feedback is based on following parameters-
 1. Punctuality and Discipline
 2. Domain Knowledge
 3. Presentation Skill & Interaction with students
 4. Ability to resolve difficulties
 5. Effective use of Teaching Aids

D-14

For AICTE Diploma Courses

wef - 2017-18

Maharashtra State Board of Technical Education

STUDENTS FEED BACK

(Head of the Department shall take the Feed Back at the End of Second Class Test)

Academic Year: 2021-22

Program: Computer

Semester: CO2I

Date: 5/5/22

Sr. No	Name of Course (TH / PR)	Name of Faculty	Each Parameter to be Assessed on the Scale of 1 to 5 (1 - Lowest & 5 - Highest)				Total (Max 25)	
			Punctuality & Discipline	Domain Knowledge	Presentation Skill & Interaction with Students	Ability to Resolve Difficulties		Effective Use of Teaching Aids
1	AMI	Mrs. C.S. Kulkarni	5	5	5	5	5	25
2	PCI	Mrs P.S. Kardile	5	5	4	5	5	24
3	BEC	Mrs K.R. Nemade	5	5	5	4	5	23
4	EEC	Mrs S.V. Waghmare	5	5	5	5	5	25
5	BCC	Mrs S.S. Munde	5	5	5	4	4	23
6	WPD	Mrs. H.G. Wani	5	4	4	4	4	21
7	CPH	Mr. S.B. Khadke	5	5	5	4	5	24



(Name & Signature of HOD)

A. A. Deshpande



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D-14

For AICTE Diploma Courses

wef - 2017-18

Maharashtra State Board of Technical Education

STUDENTS FEED BACK

(Head of the Department shall take the Feed Back at the End of Second Class Test)

Academic Year: 2021-2022 Program: *Computer* Semester: *6*Date: *29-4-22.*

Each Parameter to be Assessed on the Scale of 1 to 5
(1 - Lowest & 5 - Highest)

Sr. No	Name of Course (TH / PR)	Name of Faculty	Punctuality & Discipline	Domain Knowledge	Presentation Skill & Interaction with Students	Ability to Resolve Difficulties	Effective Use of Teaching Aids	Total (Max 25)
1	MAD	Mr. Dhepe	5	5	5	5	5	25
2	NIS	Mr. Khadke	5	5	5	5	5	25
3	PWP	Mrs. Dangi	5	5	5	5	5	25
4	MAN, EDE	Mrs. Wari	5	4	5	5	5	24
5	E TE, CPP	Mrs. Deshpande	5	5	5	5	5	25



AAJ
(Name & Signature of HOD)
A.A. Deshpande.



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D-14

For AICTE Diploma Courses

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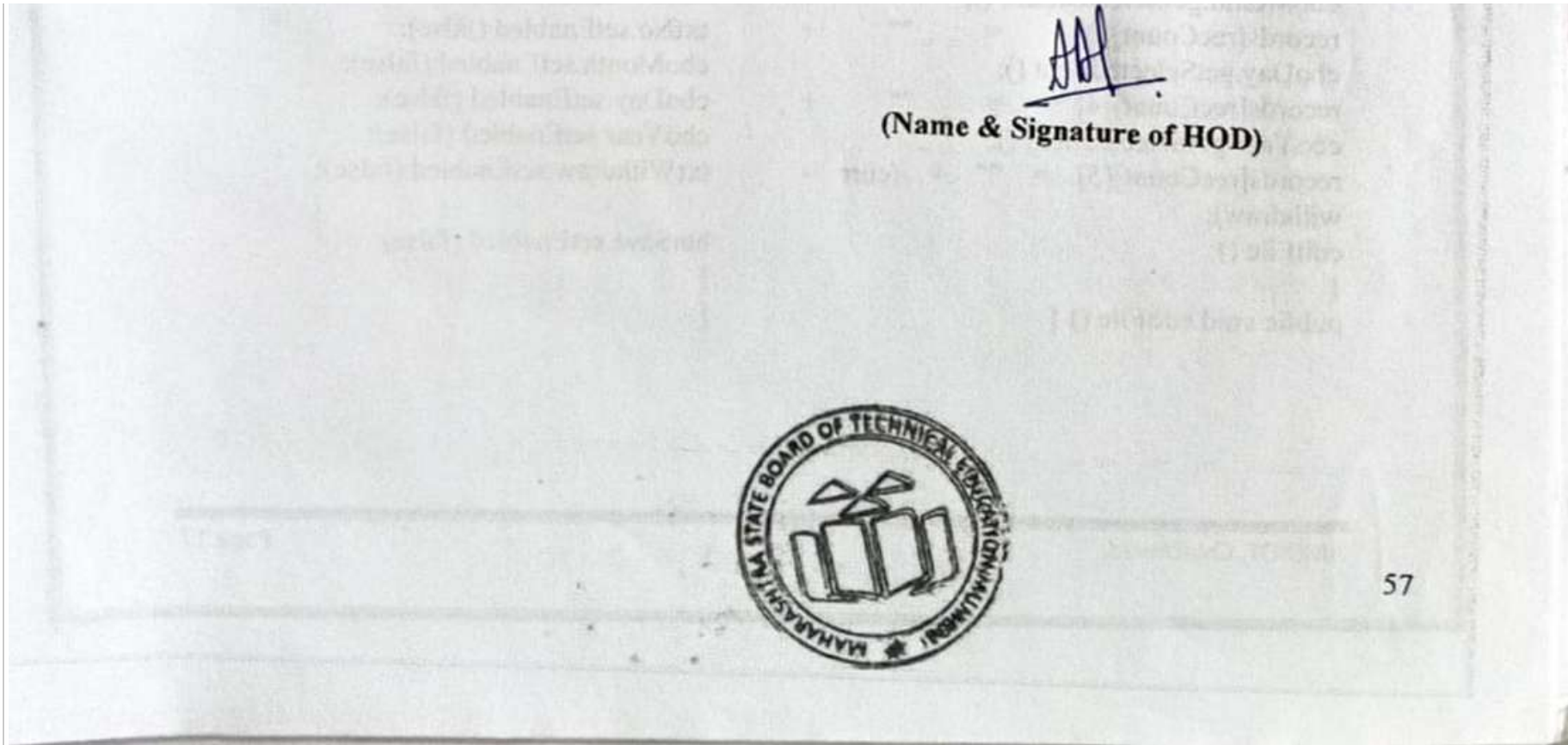
Maharashtra State Board of Technical Education

STUDENTS FEED BACK

(Head of the Department shall take the Feed Back at the End of Second Class Test)

Academic Year: 2022-23 Program: Computer Engineering Semester: CO3I Date:

Sr. No	Name of Course (TH / PR)	Name of Faculty	Each Parameter to be Assessed on the Scale of 1 to 5 (1 - Lowest & 5 - Highest)					Total (Max 25)
			Punctuality & Discipline	Domain Knowledge	Presentation Skill & Interaction with Students	Ability to Resolve Difficulties	Effective Use of Teaching Aids	
1	DSU	Mrs. Dangri	5	5	4	5	5	24
2	CGR	Mrs. Wani	4	4	4	4	4	20
3	OOP	Mrs. Kardile	5	5	4	5	4	23
4	DTE	Mrs. Waghmare	5	4	3	3	4	19
5	DBMS	Mr. Dhepe	5	4	3	3	4	19



2.2.2 Initiatives to improve the quality of semester tests and assignments (15)

Institute Marks

15.00

A. Process for Internal semester question paper setting and evaluation and effective process implementation (5)

Institute Marks

- Two unit tests of 20 marks each are conducted for each course in each semester as per the MSBTE academic calendar. Duration for each test is of 1 hour. The first unit test covers 40-45% of the curriculum. The second unit test covers remaining 55-60% of the curriculum.
- Blooms Taxonomy is followed while setting the internal exam question papers. The Exam cell prepares the schedule of the internal test date based on academic calendar.
- Schedule of progressive test is designed as per academic calendar of MSBTE.
- Notice is given to respective staff members prior 3-4 days of exam to set question paper along with their model answer paper.
- The time table for the unit test is prepared by the department and is displayed on notice board well in advance. Maximum two tests are conducted in a day for a given class.
- Sample question papers are referred by subject teacher to design unit test question paper. Single question paper is set for every course of the semester even if it is offered to more than one class and taught by more than one faculty. In such cases, concerned faculties sit together and set the single question paper for all the classes as per the rules.
- The question paper is set based on the syllabus completion for each test. The question papers are set by the course coordinator, confirmed, and approved by the Head of the Department, Principal and handed over to the exam cell.
- The model answer for the unit test is prepared by the concerned faculty. Model answer is circulated to the students.
- The answer sheets are evaluated by the faculty within 3-4 working days from the date of test and the result analysis is submitted to the HOD.
- The checked answer sheets are distributed to the students and answers are discussed in the class room and mistakes, corrections are conveyed to the students by respective subject teacher.
- Analysis of class test results and mentoring after Class test. Parents meet is conducted after evaluation of answer paper of every subject to show progress of students to their parents.
- The faculty members maintain the record of progressive test either in register or in D5 format.
- The students who are poor in progressive test are given to solve question paper 3 times.
- Time table for practice test of all students is prepared to conduct online practice test in which practice question paper is sent on WhatsApp group by concerned faculties and students are required to solve it at home and submit it on next day.

Sr. No.	Parameter	Initiative taken	Skills developed
1.	End Semester Exam	1. Model answers 2. one MSBTE question paper is solved 3. Assignments are given on each chapter.	1. Understands MSBTE question paper pattern 2. Facilitates the preparation for exam 3. Repeated questions can be attempted easily
2.	Class Test	1. Setting structured questions 2. Provide chapter wise question bank to students. 3. Follows Bloom's Taxonomy	1. Recall, organize and present knowledge 2. Writing and presentation skills are developed.
3.	Practical Sessions	1. Use of Laboratory manual or create course file 2. Demonstration , program explanation, video 3. Simulation, online compiler	1. Helps in understanding certain questions 2. Improve cognitive ability 3. Enhance better understanding of concepts, develops thinking ability 4. Increase logical ability
4.	Assignments and Micro projects	1. Course wise assignments 2. Micro projects for each subject.	1. Increases better understanding of concepts 2. Accelerates preparation for end semester exams

1. Sample question paper format along with CO, R/U/A level, Attainment level is given below:

Academic Year 2022-23

Scheme-I

Question Paper Profile

(Unit Test –I)

NBA COURSE CODE :- C412

Program Name : Diploma in Computer Engineering

Program Code : CO

Semester : IV

Course Title : JAVA PROGRAMMING

Course Code: 22412

Course Outcomes of JAVA PROGRAMMING:-

C412.1: Develop programs using Object Oriented methodology in Java.

C412.2: Apply concept of inheritance for code reusability.

C412.3: Develop programs using multithreading.

C412.4: Implement Exception Handling.

C412.5: Develop programs using graphics and applet.

C412.6: Develop programs for handling I/O and file streams.

Unit wise R/U/A Level for Java Programming:-

Level	Levels from cognition process Dimension			Total Marks
	R	U	A	
Topic/ Unit				
1	02	04	04	10
2	02	06	10	18
3	02	04	04	10

Total	06	14	18	38
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Questionwise R/U/A/ Level for Java Programming:-

Q. No	A				b				C				D				e				f				Marks	
	T	L	M	C	T	L	M	C	T	L	M	C	T	L	M	C	T	L	M	C	T	M	L	C		
1.	1			2				2				2				2				2				2		08
		R	-			R	-			R	2			R	-			R	2			R	-			
		U	-	C412.1		U	-	C412.1		U	-	C412.2		U	2	C412.2		U	-	C412.3		U	2	C412.3		
		A	2			A	2			A	-			A	-			A	-			A	-			
2.	1			4				4				4				4				4				4		12
		R	-			R	4			R	-			R	-			R	-			R	-			
		U	4	C412.1		U	-	C412.1		U	-	C412.2		U	4	C412.3		U	-	C412.3		U	-			
		A	-			A	-			A	4			A	-			A	4			A	4			
20																										

T = Topic / Unit Number

L = Level of Question

M= Marks

C= Course Outcome

R= Remember

U= Understand

A=Apply and Above

Shri Jain Vidya Prasarak Mandal's

Rasiklal M. Dhariwal Institute of Technology

Class Test –I

2022-2023

Year/Course : CO4I

Time : 1 Hr

Course : JPR

Marks : 20

Q. NO.	QUESTION	CO	MARKS	R/U/A
Q.1)	Attempt any four of the following	Marks 8 (4*2)		
a)	Write a program using logical operators.	C412.1	2	A
b)	Write a program using arithmetic operators.	C412.1	2	A
c)	What is command line argument? Write a program of it.	C412.2	2	R
d)	Describe vector and its constructors.	C412.2	2	U
e)	What is static members? Write a program using static members.	C412.3	2	R
f)	Differentiate between method overloading and method overriding.	C412.3	2	U
Q.2)	Attempt any three of the following	Marks 12 (4*3)		
a)	What is Type casting? Explain with an example.	C412.1	4	U
b)	Describe any four features of Java.	C412.1	4	R
c)	Describe any 4 String functions along with example.	C412.2	4	A
d)	Write a program of Constructor Overloading.	C412.3	4	U
e)	Write a program of Single level Inheritance.	C412.3	4	A
Total			36	

Attainment Level for Java Programming:-

Que.NO.	C412.1	C412.2	C412.3	C412.4	C412.5	Attainment
---------	--------	--------	--------	--------	--------	------------

1	a	3	-	-	-	-	3
	b	3	-	-	-	-	3
	c	-	3	-	-	-	3
	d	-	3	-	-	-	3
	e	-	-	3	-	-	3
	f	-	-	3	-	-	3
2	a	3	-	-	-	-	3
	b	3	-	-	-	-	3
	c	-	3	-	-	-	3
	d	-	-	3	-	-	3
	e	-	-	3	-	-	3
Final Attainment							3

1: Slight (Low)

2: Moderate (Medium)

3: Substantial (High)

2. Sample question paper format along with CO, R/U/A level, Attainment level is given below:

Academic Year 2022-2023

Scheme-I

Question Paper Profile

(Unit Test –II)

NBA COURSE CODE :- C517

Program Name : Diploma in Computer Engineering

Program Code : CO

Semester : V

Course Title : ADV. JAVA PROGRAMMING

Course Code: 22517

Course Outcomes of ADV. JAVA PROGRAMMING:-

C517.1: Develop programs using GUI framework (AWT and Swing).

C517.2: Handle events of AWT and Swing Components.

C517.3: Develop programs to handle events in Java Programming.

C517.4: Develop programs using Networking concepts.

C517.5: Develop programs using database.

C517.6: Develop programs using servlets.

Unit wise R/U/A/ Level for Adv. Java Programming:-

Level	Levels from cognition process Dimension			Total Marks
	R	U	A	
4	02	04	04	10
5	02	04	06	12
6	04	04	06	14
Total	08	12	16	36

T = Topic / Unit Number

L = Level of Question

M= Marks

C= Course Outcome

R= Remember

U= Understand

A=Apply and Above

Question wise R/U/A/ Level for Adv. Java Programming:-

**Shri Jain Vidya Prasarak Mandal's
Rasiklal M. Dhariwal Institute of Technology**

Class Test –II

2022-2023

Year/Course : CO5I

Time : 1 Hr

Course : AJP

Marks : 20

Q. NO.	QUESTION	CO	MARKS	R/U/A
Q.1)	Attempt any TWENTY of the following	Marks 20 (1*20)		
1)	Which of the following code is used to get an attribute in a HTTP Session object in servlets? a) session.getAttribute(String name) b) session.alterAttribute(String name) c) session.updateAttribute(String name) d) session.setAttribute(String name)	C517.6	1	U
2)	Which of the following is true about servlets? a) Servlets execute within the address space of web server b) Servlets are platform-independent because they are written in java c) Servlets can use the full functionality of the Java class libraries d) Servlets execute within the address space of web server, platform independent and uses the functionality of java class libraries	C517.6	1	A
3)	Which of the below is not a session tracking method? a) URL rewriting b) History c) Cookies d) SSL sessions	C517.6	1	R
4)	Cookies were originally designed for _____ a) Client-side programming b) Server-side programming c) Both a and b d) Web programming	C517.6	1	U
5)	Which of the following is advantage of using PreparedStatement in Java? a) Slow performance b) Encourages SQL injection c) Prevents SQL injection d) More memory usage	C517.5	1	A
6)	In the following JDBC drivers which is known as partially java driver? A) JDBC-ODBC bridge driver B) Native-API driver C) Network Protocol driver D) Thin driver	C517.5	1	R
7)	Which driver uses ODBC driver to connect to the database? A) JDBC-ODBC bridge driver B) Native-API driver C) Network Protocol driver D) Thin driver	C517.5	1	U
8)	Which method of Class class is used to register the driver class, This method is used to dynamically load the driver class? A) forName() B) getConnection() C) createStatement() D) executeQuery()	C517.5	1	U

9)	In DriverManager class which method is used to establish the connection with the specified url? A) public static void registerDriver(Driver driver) B) public static void deregisterDriver(Driver driver) C) public static Connection getConnection(String url) D) public static Connection getConnection(String url,String userName,String password)	C517.5	1	A
----	---	--------	---	---

Q. NO.	QUESTION	CO	MARKS	R/U/A
10)	This is an example of prepared statement interface that----- ? PreparedStatement stmt=con.prepareStatement("select * from emp"); ResultSet rs=stmt.executeQuery(); while(rs.next()){ System.out.println(rs.getInt(1)+" "+rs.getString(2)); } A) deletes the record B) retrieve the record C) updates the record D) inserts the record	C517.5	1	A
11)	Which of these methods of DatagramPacket is used to find the length of byte array? a) getnumber() b) length() c) Length() d) getLength()	C517.4	1	U
12)	Which of these class must be used to send a datatgram packets over a connection? a) InetAdress b) DatagramPacket c) DatagramSocket d) All of the mentioned	C517.5	1	A

13)	<p>What is the output of this program?</p> <pre>import java.net.*; class networking { public static void main(String[] args) throws Exception { URL obj = new URL("http://www.sanfoundry.com/javamcq"); URLConnection obj1 = obj.openConnection(); System.out.print(obj1.getContentType()); } }</pre> <p>a) html b) text c) html/text d) text/html</p>	C517.4	1	A
14)	<p>Which of these is a return type of getAddress method of DatagramPacket class?</p> <p>a) DatagramPacket b) DatagramSocket c) InetAddress d) ServerSocket</p>	C517.5	1	U
15)	<p>What is the output of this program?</p> <pre>import java.net.*; class networking { public static void main(String[] args) throws MalformedURLException { URL obj = new URL("http://www.sanfoundry.com/javamcq"); System.out.print(obj.toExternalForm()); } }</pre> <p>a) sanfoundry b) sanfoundry.com c) www.sanfoundry.com d) http://www.sanfoundry.com/javamcq (http://www.sanfoundry.com/javamcq)</p>	C517.4	1	A
16)	<p>Which of these class is used to create servers that listen for either local or remote client programs?</p> <p>a) httpServer b) ServerSocket c) MimeHeader d) HttpResponse</p>	C517.6	1	R
17)	<p>Which of these is a standard for communicating multimedia content over email?</p> <p>a) http b) https c) Mime d) httpd</p>	C517.6	1	R
18)	<p>Which maintains a cursor pointing to a particular row of data, Initially, cursor points to before the first row?</p> <p>A) Connection interface B) Statement interface C) ResultSet interface D) None of the above</p>	C517.5	1	A
19)	<p>Which of these exceptions is thrown by URL class's constructors?</p> <p>a) URLNotFound b) URLSourceNotFound c) MalformedURLException d) URLNotFoundException</p>	C517.4	1	U
20)	<p>Which of the following is used to call stored procedure?</p> <p>a) Statement b) PreparedStatement c) CallableStatment d) CalledStatement</p>	C517.5	1	U

Q. NO.	QUESTION	CO	MARKS	R/U/A
21)	<p>What will be the output of the following Java program?</p> <pre>import java.io.*; import java.net.*; public class URLLDemo { public static void main(String[] args) { try { URL url=new URL("https://www.sanfoundry.com/java-mcq"); System.out.println("Protocol: "+url.getProtocol()); System.out.println("Host Name: "+url.getHost()); System.out.println("Port Number: "+url.getPort()); } catch(Exception e){System.out.println(e);} } }</pre> <p>a) Protocol: http b) Host Name: www.sanfoundry.com c) Port Number: -1 d) All of the mentioned</p>	C517.4	1	A
22)	<p>What will be the output of the following Java program?</p> <pre>import java.net.*; class networking { public static void main(String[] args) throws MalformedURLException { URL obj = new URL("https://www.sanfoundry.com/javamcq"); System.out.print(obj.getPort()); } }</pre> <p>a) 1 b) 0 c) -1 d) garbage value</p>	C517.4	1	A
23)	<p>What is the difference between servlets and applets?</p> <p>i. Servlets execute on Server; Applets execute on browser ii. Servlets have no GUI; Applet has GUI</p> <p>iii. Servlets creates static web pages; Applets creates dynamic web pages</p> <p>iv. Servlets can handle only a single request; Applet can handle multiple requests</p> <p>a) i, ii, iii are correct b) i, ii are correct c) i, iii are correct d) i, ii, iii, iv are correct</p>	C517.6	1	U

24)	<p>Consider the following program Select the statement that should be added to the program to get correct output.</p> <pre>import javax.servlet.*; import javax.servlet.http.*; public class AddCookieServlet extends HttpServlet { public void doPost(HttpServletRequest request,HttpServletResponse response) throws ServletException,IOException { String data = request.getParameter("data"); Cookie cookie = new Cookie("MyCookie",data); response.setContentType("text/html"); PrintWriter pw = response.getWriter(); pw.println("MyCookie has been set to"); pw.println(data); pw.close(); } } A) response.addCookie(cookie); B) resp.addCookie(cookie); C) request.addCookie(cookie); D) None</pre>	C517.6	1	A
25)	<p>ARRAY,CLOB,BLOB and REF type columns can be updated in?</p> <p>A) JDBC 2.0 B) JDBC 1.0 C) JDBC 3.0 D) JDBC 4.0</p>	C517.5	1	A
TOTAL			25	

Attainment Level for Adv. JAVA Programming:-

Que.NO.	C517.1	C517.2	C517.3	C517.4	C517.5	C517.6	Attainment
---------	--------	--------	--------	--------	--------	--------	------------

1	1	-	-	-	-	-	3	3
	2	-	-	-	-	-	3	3
	3	-	-	-	-	-	3	3
	4	-	-	-	-	-	3	3
	5	-	-	-	-	3	-	3
	6	-	-	-	-	3	-	3
	7	-	-	-	-	3	-	3
	8	-	-	-	-	3	-	3
	9	-	-	-	-	3	-	3
	10	-	-	-	-	3	-	3
	11	-	-	-	3	-	-	3
	12	-	-	-	-	3	-	3
	13	-	-	-	3	-	-	3
	14	-	-	-	-	3	-	3
	15	-	-	-	3	-	-	3
	16	-	-	-	-	-	3	3
	17	-	-	-	-	-	3	3
	18	-	-	-	-	3	-	3
	19	-	-	-	3	-	-	3
	20	-	-	-	-	3	-	3
	21	-	-	-	3	-	-	3
	22	-	-	-	3	-	-	3
	23	-	-	-	-	-	3	3
	24	-	-	-	-	-	3	3
	25	-	-	-	-	3	-	3
Final Attainment								3

1: Slight (Low)

2: Moderate (Medium)

3: Substantial (High)

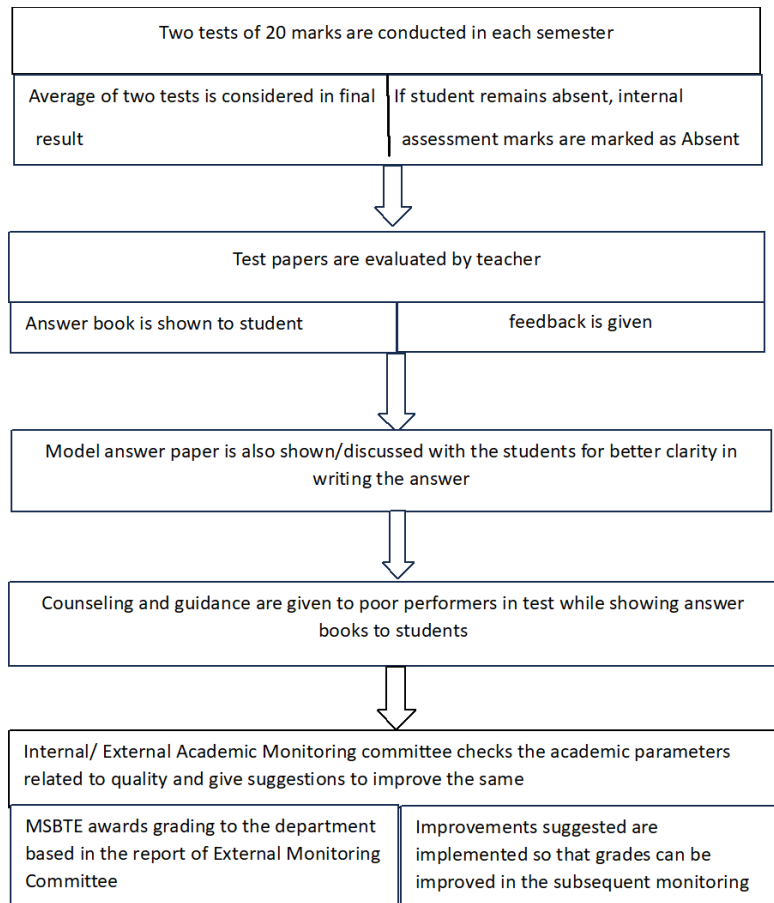


FIG 2.2.2 Overall process for internal semester question paper setting

B. Question paper setting taking into account outcomes/learning levels (5)

- The question paper is framed based on the syllabus completion of the subject for each test.
- Each question is mapped with COs (course outcomes), R/U/A level categorized as Remember, Understand, and Apply & Blooms taxonomy (BT) levels.
- Table of level of each question (Remember, Understand, and Apply) along with their marks is given at the start of the question paper. Sample question paper is shown below.
- Curriculum guidelines and teacher guide, sample question papers are referred during question paper setting.
- Blooms taxonomy is followed while setting question paper of progressive test.
- Mapping table of each question with the respective CO's is given at the end of question paper.
- Student who answered to question is taken into consideration and average of all students' marks is taken for CO -PO attainment.
- The question paper is set such that it assesses the subject knowledge, analytical skill, design skill and justification skill of the student for all the subjects.

1. **Sample question paper format along with CO, R/U/A level, Attainment level is given below:**

Academic Year 2022-23

Scheme-I

Question Paper Profile

(Unit Test –I)

NBA COURSE CODE :- C412

Program Name : Diploma in Computer Engineering

Program Code : CO

Semester : IV

Course Title : JAVA PROGRAMMING

Course Code: 22412

Course Outcomes of JAVA PROGRAMMING:-

C412.1: Develop programs using Object Oriented methodology in Java.

C412.2: Apply concept of inheritance for code reusability.

C412.3: Develop programs using multithreading.

C412.4: Implement Exception Handling.

C412.5: Develop programs using graphics and applet.

C412.6: Develop programs for handling I/O and file streams.

Unit wise R/U/A Level for Java Programming:-

Level	Levels from cognition process Dimension			Total Marks
	R	U	A	
1	02	04	04	10
2	02	06	10	18
3	02	04	04	10
Total	06	14	18	38

Questionwise R/U/A/ Level for Java Programming:-

Q. No	A				b				C				D				e				f				Marks	
	T	L	M	C	T	L	M	C	T	L	M	C	T	L	M	C	T	L	M	C	T	M	L	C		
1.	1		2				2				2				2				2				2			08
		R	-			R	-			R	2			R	-			R	2			R	-			
		U	-	C412.1		U	-	C412.1		U	-	C412.2		U	2	C412.2		U	-	C412.3		U	2	C412.3		
		A	2			A	2			A	-			A	-			A	-			A	-			
2.	1		4				4				4				4				4							12
		R	-			R	4			R	-			R	-			R	-							
		U	4	C412.1		U	-	C412.1		U	-	C412.2		U	4	C412.3		U	-	C412.3						
		A	-			A	-			A	4			A	-			A	4							
20																										

T = Topic / Unit Number

L = Level of Question

M = Marks

C = Course Outcome

R = Remember

U = Understand

A = Apply and Above

**Shri Jain Vidya Prasarak Mandal's
Rasiklal M. Dhariwal Institute of Technology**

Class Test –I

2022-2023

Year/Course : CO4I

Time : 1 Hr

Course : JPR

Marks : 20

Q. NO.	QUESTION	CO	MARKS	R/U/A
Q.1)	Attempt any four of the following	Marks 8 (4*2)		
a)	Write a program using logical operators.	C412.1	2	A
b)	Write a program using arithmetic operators.	C412.1	2	A
c)	What is command line argument? Write a program of it.	C412.2	2	R
d)	Describe vector and its constructors.	C412.2	2	U
e)	What is static members? Write a program using static members.	C412.3	2	R
f)	Differentiate between method overloading and method overriding.	C412.3	2	U
Q.2)	Attempt any three of the following	Marks 12 (4*3)		
a)	What is Type casting? Explain with an example.	C412.1	4	U
b)	Describe any four features of Java.	C412.1	4	R
c)	Describe any 4 String functions along with example.	C412.2	4	A
d)	Write a program of Constructor Overloading.	C412.3	4	U
e)	Write a program of Single level Inheritance.	C412.3	4	A
Total			36	

Attainment Level for Java Programming:-

Que.NO.		C412.1	C412.2	C412.3	C412.4	C412.5	Attainment
1	a	3	-	-	-	-	3
	b	3	-	-	-	-	3
	c	-	3	-	-	-	3
	d	-	3	-	-	-	3
	e	-	-	3	-	-	3
	f	-	-	3	-	-	3
2	a	3	-	-	-	-	3
	b	3	-	-	-	-	3
	c	-	3	-	-	-	3
	d	-	-	3	-	-	3
	e	-	-	3	-	-	3
Final Attainment							3

1: Slight (Low)**2: Moderate (Medium)****3: Substantial (High)**

2. Sample question paper format along with CO, R/U/A level, Attainment level is given below:

Academic Year 2022-2023**Scheme-I****Question Paper Profile****(Unit Test –II)****NBA COURSE CODE :- C517****Program Name : Diploma in Computer Engineering****Program Code : CO****Semester : V****Course Title : ADV. JAVA PROGRAMMING****Course Code: 22517**

Course Outcomes of ADV. JAVA PROGRAMMING:-**C517.1: Develop programs using GUI framework (AWT and Swing).****C517.2: Handle events of AWT and Swing Components.****C517.3: Develop programs to handle events in Java Programming.****C517.4: Develop programs using Networking concepts.****C517.5: Develop programs using database.****C517.6: Develop programs using servlets.****Unit wise R/U/A/ Level for Adv. Java Programming:-**

Level	Levels from cognition process Dimension			Total Marks
	R	U	A	
Topic/ Unit				
4	02	04	04	10
5	02	04	06	12
6	04	04	06	14
Total	08	12	16	36

T = Topic / Unit Number**L = Level of Question****M = Marks****C = Course Outcome****R = Remember****U = Understand****A = Apply and Above****Question wise R/U/A/ Level for Adv. Java Programming:-**

**Shri Jain Vidya Prasarak Mandal's
Rasiklal M. Dhariwal Institute of Technology**

Class Test –II

2022-2023

Year/Course : CO5I

Time : 1 Hr

Course : AJP

Marks : 20

Q. NO.	QUESTION	CO	MARKS	R/U/A
Q.1)	Attempt any TWENTY of the following	Marks 20 (1*20)		
1)	Which of the following code is used to get an attribute in a HTTP Session object in servlets? a) session.getAttribute(String name) b) session.alterAttribute(String name) c) session.updateAttribute(String name) d) session.setAttribute(String name)	C517.6	1	U
2)	Which of the following is true about servlets? a) Servlets execute within the address space of web server b) Servlets are platform-independent because they are written in java c) Servlets can use the full functionality of the Java class libraries d) Servlets execute within the address space of web server, platform independent and uses the functionality of java class libraries	C517.6	1	A
3)	Which of the below is not a session tracking method? a) URL rewriting b) History c) Cookies d) SSL sessions	C517.6	1	R
4)	Cookies were originally designed for _____ a) Client-side programming b) Server-side programming c) Both a and b d) Web programming	C517.6	1	U
5)	Which of the following is advantage of using PreparedStatement in Java? a) Slow performance b) Encourages SQL injection c) Prevents SQL injection d) More memory usage	C517.5	1	A
6)	In the following JDBC drivers which is known as partially java driver? A) JDBC-ODBC bridge driver B) Native-API driver C) Network Protocol driver D) Thin driver	C517.5	1	R
7)	Which driver uses ODBC driver to connect to the database? A) JDBC-ODBC bridge driver B) Native-API driver C) Network Protocol driver D) Thin driver	C517.5	1	U

8)	Which method of Class class is used to register the driver class, This method is used to dynamically load the driver class? A) forName() B) getConnection() C) createStatement() D) executeQuery()	C517.5	1	U
9)	In DriverManager class which method is used to establish the connection with the specified url? A) public static void registerDriver(Driver driver) B) public static void deregisterDriver(Driver driver) C) public static Connection getConnection(String url) D) public static Connection getConnection(String url,String userName,String password)	C517.5	1	A

Q. NO.	QUESTION	CO	MARKS	R/U/A
10)	This is an example of prepared statement interface that----- ? PreparedStatement stmt=con.prepareStatement("select * from emp"); ResultSet rs=stmt.executeQuery(); while(rs.next()){ System.out.println(rs.getInt(1)+" "+rs.getString(2)); } A) deletes the record B) retrieve the record C) updates the record D) inserts the record	C517.5	1	A
11)	Which of these methods of DatagramPacket is used to find the length of byte array? a) getnumber() b) length() c) Length() d) getLength()	C517.4	1	U
12)	Which of these class must be used to send a datatgram packets over a connection? a) InetAdress b) DatagramPacket c) DatagramSocket d) All of the mentioned	C517.5	1	A

13)	<p>What is the output of this program?</p> <pre>import java.net.*; class networking { public static void main(String[] args) throws Exception { URL obj = new URL("http://www.sanfoundry.com/javamcq"); URLConnection obj1 = obj.openConnection(); System.out.print(obj1.getContentType()); } }</pre> <p>a) html b) text c) html/text d) text/html</p>	C517.4	1	A
14)	<p>Which of these is a return type of getAddress method of DatagramPacket class?</p> <p>a) DatagramPacket b) DatagramSocket c) InetAddress d) ServerSocket</p>	C517.5	1	U
15)	<p>What is the output of this program?</p> <pre>import java.net.*; class networking { public static void main(String[] args) throws MalformedURLException { URL obj = new URL("http://www.sanfoundry.com/javamcq"); System.out.print(obj.toExternalForm()); } }</pre> <p>a) sanfoundry b) sanfoundry.com c) www.sanfoundry.com d) http://www.sanfoundry.com/javamcq (http://www.sanfoundry.com/javamcq)</p>	C517.4	1	A
16)	<p>Which of these class is used to create servers that listen for either local or remote client programs?</p> <p>a) httpServer b) ServerSocket c) MimeHeader d) HttpResponse</p>	C517.6	1	R
17)	<p>Which of these is a standard for communicating multimedia content over email?</p> <p>a) http b) https c) Mime d) httpd</p>	C517.6	1	R
18)	<p>Which maintains a cursor pointing to a particular row of data, Initially, cursor points to before the first row?</p> <p>A) Connection interface B) Statement interface C) ResultSet interface D) None of the above</p>	C517.5	1	A
19)	<p>Which of these exceptions is thrown by URL class's constructors?</p> <p>a) URLNotFound b) URLSourceNotFound c) MalformedURLException d) URLNotFoundException</p>	C517.4	1	U
20)	<p>Which of the following is used to call stored procedure?</p> <p>a) Statement b) PreparedStatement c) CallableStatment d) CalledStatement</p>	C517.5	1	U

Q. NO.	QUESTION	CO	MARKS	R/U/A
21)	<p>What will be the output of the following Java program?</p> <pre>import java.io.*; import java.net.*; public class URLLDemo { public static void main(String[] args) { try { URL url=new URL("https://www.sanfoundry.com/java-mcq"); System.out.println("Protocol: "+url.getProtocol()); System.out.println("Host Name: "+url.getHost()); System.out.println("Port Number: "+url.getPort()); } catch(Exception e){System.out.println(e);} } }</pre> <p>a) Protocol: http b) Host Name: www.sanfoundry.com c) Port Number: -1 d) All of the mentioned</p>	C517.4	1	A
22)	<p>What will be the output of the following Java program?</p> <pre>import java.net.*; class networking { public static void main(String[] args) throws MalformedURLException { URL obj = new URL("https://www.sanfoundry.com/javamcq"); System.out.print(obj.getPort()); } }</pre> <p>a) 1 b) 0 c) -1 d) garbage value</p>	C517.4	1	A
23)	<p>What is the difference between servlets and applets?</p> <p>i. Servlets execute on Server; Applets execute on browser ii. Servlets have no GUI; Applet has GUI</p> <p>iii. Servlets creates static web pages; Applets creates dynamic web pages</p> <p>iv. Servlets can handle only a single request; Applet can handle multiple requests</p> <p>a) i, ii, iii are correct b) i, ii are correct c) i, iii are correct d) i, ii, iii, iv are correct</p>	C517.6	1	U

24)	<p>Consider the following program Select the statement that should be added to the program to get correct output.</p> <pre>import javax.servlet.*; import javax.servlet.http.*; public class AddCookieServlet extends HttpServlet { public void doPost(HttpServletRequest request,HttpServletResponse response) throws ServletException,IOException { String data = request.getParameter("data"); Cookie cookie = new Cookie("MyCookie",data); response.setContentType("text/html"); PrintWriter pw = response.getWriter(); pw.println("MyCookie has been set to"); pw.println(data); pw.close(); } } A) response.addCookie(cookie); B) resp.addCookie(cookie); C) request.addCookie(cookie); D) None</pre>	C517.6	1	A
25)	<p>ARRAY,CLOB,BLOB and REF type columns can be updated in?</p> <p>A) JDBC 2.0 B) JDBC 1.0 C) JDBC 3.0 D) JDBC 4.0</p>	C517.5	1	A
TOTAL			25	

Attainment Level for Adv. JAVA Programming:-

Que.NO.	C517.1	C517.2	C517.3	C517.4	C517.5	C517.6	Attainment
---------	--------	--------	--------	--------	--------	--------	------------

1	1	-	-	-	-	-	3	3
	2	-	-	-	-	-	3	3
	3	-	-	-	-	-	3	3
	4	-	-	-	-	-	3	3
	5	-	-	-	-	3	-	3
	6	-	-	-	-	3	-	3
	7	-	-	-	-	3	-	3
	8	-	-	-	-	3	-	3
	9	-	-	-	-	3	-	3
	10	-	-	-	-	3	-	3
	11	-	-	-	3	-	-	3
	12	-	-	-	-	3	-	3
	13	-	-	-	3	-	-	3
	14	-	-	-	-	3	-	3
	15	-	-	-	3	-	-	3
	16	-	-	-	-	-	3	3
	17	-	-	-	-	-	3	3
	18	-	-	-	-	3	-	3
	19	-	-	-	3	-	-	3
	20	-	-	-	-	3	-	3
	21	-	-	-	3	-	-	3
	22	-	-	-	3	-	-	3
	23	-	-	-	-	-	3	3
	24	-	-	-	-	-	3	3
	25	-	-	-	-	3	-	3
Final Attainment								3

1: Slight (Low)

2: Moderate (Medium)

3: Substantial (High)

C. COs coverage in class test / mid-term tests and assignments (5)

Institute Marks

5.00

- Generally first 2-3 CO's get mapped with the question of first unit test exam.
- Remaining CO's get mapped in the second unit test
- However it may vary slightly depending upon the nature of the course
- All the CO's get mapped in end semester examination question paper.
- Individual student's Answer sheet is evaluated, and question answered by student is mapped with COs and POs.
- At the end of each topic of every subject, Assignment is given to students which they have to write in a notebook and submit it to respective subject teacher and hence every CO is covered in assignment.

Attainment Level:-

Que.NO.		C517.1	C517.2	C517.3	C517.4	C517.5	C517.6	Attainment
---------	--	--------	--------	--------	--------	--------	--------	------------

1	1	-	-	-	-	-	3	3
	2	-	-	-	-	-	3	3
	3	-	-	-	-	-	3	3
	4	-	-	-	-	-	3	3
	5	-	-	-	-	3	-	3
	6	-	-	-	-	3	-	3
	7	-	-	-	-	3	-	3
	8	-	-	-	-	3	-	3
	9	-	-	-	-	3	-	3
	10	-	-	-	-	3	-	3
	11	-	-	-	3	-	-	3
	12	-	-	-	-	3	-	3
	13	-	-	-	3	-	-	3
	14	-	-	-	-	3	-	3
	15	-	-	-	3	-	-	3
	16	-	-	-	-	-	3	3
	17	-	-	-	-	-	3	3
	18	-	-	-	-	3	-	3
	19	-	-	-	3	-	-	3
	20	-	-	-	-	3	-	3
	21	-	-	-	3	-	-	3
	22	-	-	-	3	-	-	3
	23	-	-	-	-	-	3	3
	24	-	-	-	-	-	3	3
	25	-	-	-	-	3	-	3
Final Attainment								3

1: Slight (Low)

2: Moderate (Medium)

3: Substantial (High)

second example:-

Sample question paper is given below:

Academic Year 2022-23

Scheme-I

Question Paper Profile

(Unit Test –I)

NBA COURSE CODE :- C412

Program Name : Diploma in Computer Engineering

Program Code : CO

Semester : IV

Course Title : JAVA PROGRAMMING

Course Code: 22412

Course Outcomes:-

C412.1: Develop programs using Object Oriented methodology in Java.

C412.2: Apply concept of inheritance for code reusability.

C412.3: Develop programs using multithreading.

C412.4: Implement Exception Handling.

C412.5: Develop programs using graphics and applet.

C412.6: Develop programs for handling I/O and file streams.

Level	Levels from cognition process Dimension			Total Marks
	R	U	A	
Topic/ Unit				
1	02	04	04	10
2	02	06	10	18
3	02	04	04	08
Total	06	14	18	38

Q. No	a				b				c				d				e				f				Marks	
	T	L	M	C	T	L	M	C	T	L	M	C	T	L	M	C	T	L	M	C	T	M	L	C		
1.	1			2				2				2				2				2				2	08	
		R	-		R	-		R	2	R	-		R	2	R	-		R	-		R	-				
		U	-	C412.1	U	-	C412.1	U	-	C412.2	U	2	C412.2	U	-	C412.3	U	2	C412.3	U	2	C412.3	U	2		C412.3
		A	2		A	2		A	-		A	-		A	-		A	-		A	-		A	-		
2.	1			4				4				4				4				4				12		
		R	-		R	4		R	-		R	-		R	-		R	-		R	-					
		U	4	C412.1	U	-	C412.1	U	-	C412.2	U	4	C412.3	U	-	C412.3	U	-	C412.3	U	-	C412.3	U		-	C412.3
		A	-		A	-		A	4		A	-		A	4		A	4		A	4		A		4	
20																										

T = Topic / Unit Number

L = Level of Question

M = Marks

C = Course Outcome

R = Remember

U = Understand

A = Apply and Above

Shri Jain Vidya Prasarak Mandal's

Rasiklal M. Dhariwal Institute of Technology

Class Test –I

2022-2023

Year/Course : CO4I

Time : 1 Hr

Subject : JPR

Marks : 20

Q. NO.	QUESTION	CO	MARKS	R/U/A
--------	----------	----	-------	-------

Q.1)	Attempt any four of the following	Marks 8 (4*2)		
a)	Write a program using logical operators.	C412.1	2	A
b)	Write a program using arithmetic operators.	C412.1	2	A
c)	What is command line argument? Write a program of it.	C412.2	2	R
d)	Describe vector and its constructors.	C412.2	2	U
e)	What is static members? Write a program using static members.	C412.3	2	R
f)	Differentiate between method overloading and method overriding.	C412.3	2	U
Q.2)	Attempt any three of the following	Marks 12 (4*3)		
a)	What is Type casting? Explain with an example.	C412.1	4	U
b)	Describe any four features of Java.	C412.1	4	R
c)	Describe any 4 String functions along with example.	C412.2	4	A
d)	Write a program of Constructor Overloading.	C412.3	4	U
e)	Write a program of Single level Inheritance.	C412.3	4	A
Total			36	

Attainment Level:-

Que.NO.		C412.1	C412.2	C412.3	C412.4	C412.5	Attainment
1	a	3	-	-	-	-	3
	b	3	-	-	-	-	3
	c	-	3	-	-	-	3
	d	-	3	-	-	-	3
	e	-	-	3	-	-	3
	f	-	-	3	-	-	3

2	a	3	-	-	-	-	3
	b	3	-	-	-	-	3
	c	-	3	-	-	-	3
	d	-	-	3	-	-	3
	e	-	-	3	-	-	3
Final Attainment							3

1: Slight (Low)

2: Moderate (Medium)

3: Substantial (High)

2.2.3 Quality of Experiments (15)

Institute Marks

15.00

A. Experimental methodologies (5)

Institute Marks

5.00

- The laboratory manuals are learning resources prepared by subject experts from various institutes affiliated to MSBTE under the guidance of educational consultants. They include things such as- practical significance, relevant program outcomes, relevant Course outcomes, Practical learning outcome, Practical skills, related theory, Experimental set-up, Procedure, Resources required, Precautions, Student activities, Observations and calculations, Questions for confirmation of learning, Application of each experiment, Results and conclusion etc.
- These attributes are relevant to curriculum objectives.
- The Institute follows the specific, scientific and systematic approach in the implementation of laboratory activities. The laboratory manuals are used in the development of course outcomes and abilities and knowledge required to attain through the laboratory experiences.
- The Experiments are carried out by concerned subject teacher with the help of laboratory attendant.
- Batch sizes between 20 to 22 can be limited to ensure experiment quality.
- Every practical session of 2 hrs. / 4 hrs. (According to MSBTE scheme) for each batch is scheduled with a lab plan that is created ahead of time.
- The maintenance of different equipment's is intermittently done by lab attendants for better quality of experiments by students.
- Attendance book, Logbook is maintained by the laboratories throughout the year.
- For better understanding relate theory with practical and design practical related questions so as to ensure achievement of identified CO.
- Lab attendants perform routine maintenance on various pieces of equipment to ensure that student's experiments are of higher quality.
- Student conducts laboratory experiments, programs under the supervision of faculty members during the academic term according to a set schedule. Teachers confirm the observations.
- The requirements of things, hardware materials or consumable for laboratory are given before that practical's will be conducted smoothly.
- The maintenance related requirement of laboratory is also communicated to HOD, Principal occasionally.

B. Innovative experiments including industry attached practices, virtual labs (5)

Institute Marks

5.00

- The syllabus provided by MSBTE lists experiments in accordance with the guidelines. When required, additional experiments are carried out for pertinent courses outside of the list that is provided. Wherever necessary extra experiments are also conducted beyond the specified list for relevant courses.
- Students are allowed and encouraged to repeat the experiments in order to become proficient and practical. This is done to improve each student's capacity to create the protocols for a specific experiment.
- Well-equipped lab as per the latest technologies helps the student to update himself/herself.
- Web resources are used to create virtual labs with animated demonstrations and video lectures. MSBTE supported virtual labs for different courses are also taken into account for better understanding of the experiments.
- Laboratory manual explaining the details of the experiment, designing issues are available with the subject lecturer and are provided to students at the commencement of the semester.

C. Relevance to outcomes (5)

Institute Marks

- The table below displays an example of experiment list along with the corresponding course Outcomes statements.

First Example is as follows:-

Program Code : CO

Semester : VI

Course Title : PROGRAMMING WITH PYTHON

Course Code: 22617

Course Outcomes:-

C616.1: Display message on screen using Python script on IDE.

C616.2: Develop python program to demonstrate use of Operators

C616.3: Perform operations on data structures in Python.

C616.4: Develop functions for given problem.

C616.5: Design classes for given problem.

C616.6: Handle exceptions.

Sr. No	Name of Experiment/Assignment Sheet/Job/Project Activity	Type of Experiment	Relevance to CO	Relevance to PO, PSO
1	Install and configure Python IDE.	Demonstration, Study Based	C616.1	PO1,PO2,PO3,PO4, PO5,PO6,PO7, PSO1,PSO2
2	Write a simple Python program to display message on screen.	Performance, Output Based	C616.1	PO1,PO2,PO3,PO4, PO6,PO7, PSO1,PSO2
3	Write a simple Python program using operators- Arithmetic, Logical, Bitwise operators.	Performance, Output Based	C616.2	PO1,PO2,PO3,PO4, PO6,PO7, PSO1,PSO2
4	Write a simple Python program to demonstrate use of conditional statements- if, if---else, Nested if statement.	Performance, Output Based	C616.2	PO1,PO2,PO3,PO4, PO6,PO7, PSO1,PSO2

5	Write a simple Python program to demonstrate use of looping statements: while loop, for loop, Nested loops.	Performance, Output Based	C616.2	PO1,PO2,PO3,PO4, PO6,PO7, PSO1,PSO2
6	Write a simple Python program to perform following operations on lists: Create list, Access List, Update List, Delete List.	Performance, Output Based	C616.3	PO1,PO2,PO3,PO4, PO6,PO7, PSO1,PSO2
7	Write a simple Python program to perform following operations on Tuples- Create Tuple, Access Tuple, Update Tuple, Delete Tuple.	Performance, Output Based	C616.3	PO1,PO2,PO3,PO4, PO6,PO7, PSO1,PSO2
8	Write a simple Python program to perform following operations on Set- Create Set, Access Set, Update Set, Delete Set.	Performance, Output Based	C616.3	PO1,PO2,PO3,PO4, PO6,PO7, PSO1,PSO2
9	Write a simple Python program perform following operations on Dictionaries- Create Dictionary, Access Dictionary, Update Dictionary, Delete Dictionary, Looping through Dictionary.	Performance, Output Based	C616.3	PO1,PO2,PO3,PO4, PO6,PO7, PSO1,PSO2
10	a) Write a simple Python program to demonstrate math built-in functions. b) Write a simple Python program to demonstrate string built-in functions.	Performance, Output Based	C616.4	PO1,PO2,PO3,PO4, PO6,PO7, PSO1,PSO2
11	Develop user defined Python function for given problem – a) Function with minimum 2 arguments. b) Function returning values.	Performance, Output Based	C616.4	PO1,PO2,PO3,PO4, PO6,PO7, PSO1,PSO2
12	Write a Python program to demonstrate use of – a) Built in module(e.g. keyword, math, number,operator). b) User defined module.	Performance, Output Based	C616.4	PO1,PO2,PO3,PO4, PO6,PO7, PSO1,PSO2

13	Write a Python program to demonstrate use of – a) Built in packages(e.g. Numpy, Pandas). b) User defined module.	Performance, Output Based	C616.4	PO1,PO2,PO3,PO4, PO6,PO7, PSO1,PSO2
14	Write a simple Python program to demonstrate following operations: Method overloading, Method overriding.	Performance, Output Based	C616.5	PO1,PO2,PO3,PO4, PO6,PO7, PSO1,PSO2
15	Write a simple Python program to demonstrate following operations: Simple inheritance, Multiple inheritance.	Performance, Output Based	C616.5	PO1,PO2,PO3,PO4, PO6,PO7, PSO1,PSO2
16	Write a simple Python program to handle user defined exception for given problem.	Performance, Output Based	C616.6	PO1,PO2,PO3,PO4, PO6,PO7, PSO1,PSO2

Second Example is as follows:-

Sample list of experiments with relevance to outcomes (I-scheme)

Sr No	Name of Experiment	Type of experiment	Relevance to CO	Relevance to POs and PSOs
Course: Basic Chemistry 22102				
1	Identification of cation in given ionic solutions	Demonstration Performance and calculation	C102.4	PO1,PO2,PO5, PO7

2	Identification of anion in given ionic solutions.	Demonstration Performance and calculation	C102.4	PO1,PO2,PO5, PO7
3	Determine the percentage of iron in given sample using redox titration	Demonstration Performance and calculation	C102.4	PO1,PO4,PO5
4	Preparation of corrosive medium for Aluminium at different temperature	Demonstration Performance and calculation	C102.5	PO1,PO2,PO3, PO4,PO5,PO7
5	Determination of rate of corrosion at different temperatures for Aluminium.	Demonstration Performance and calculation	C102.5	PO1,PO2,PO3, PO4,PO5,PO7
6	Determination of electrode potential of Copper metal	Demonstration Performance and calculation	C102.5	PO1,PO2,PO3, PO4,PO5,PO7
7	Determination of electrode potential of Iron metal.	Demonstration Performance and calculation	C102.5	PO1,PO2,PO3, PO4,PO5,PO7
8	Determination of the voltage generated from chemical reaction using Daniel Cell.	Demonstration Performance and calculation	C102.5	PO1,PO2,PO3, PO4,PO5,PO7
9	Determine the pH value of given solution using pH meter and universal indicator	Demonstration Performance and calculation	C102.5	PO1,PO3,PO4, PO5
10	Determination of electrochemical equivalent of Cu metal using Faraday's first law.	Demonstration Performance and calculation	C102.5	PO1,PO2,PO3, PO4,PO5,PO7

11	Determination of equivalent weight of metal using Faraday's second law.	Demonstration Performance and calculation	C102.5	PO1,PO2,PO3, PO4,PO5,PO7
12	Determination of effect of temperature on viscosity for given lubricating oil using Redwood viscometer- I.	Demonstration Performance and calculation	C102.6	PO1,PO2,PO5 PO6,PO7
13	Determination of the steam emulsification number of given lubricating oil.	Demonstration	C102.6	PO1,PO2,PO5 PO6,PO7
14	Determination of flash and fire point of given lubricating oils using Cleveland open cup apparatus.	Demonstration	C102.6	PO1,PO2,PO5 PO6,PO7
15	Determination of flash point of given lubricating oil using Abels closed cup apparatus.	Demonstration	C102.6	PO1,PO2,PO5 PO6,PO7
16	Determination of thinner content in oil paint.	Demonstration Performance and calculation	C102.6	PO1,PO2,PO5 PO6,PO7

Third Example is as follows:-

Sample list of experiments with relevance to outcomes (I-scheme)

Sr No	Name of Experiment	Type of experiment	Relevance to CO	Relevance to POs and PSOs
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Course: Basic Physics 22102				
1	Measurements of dimensions of given object by Vernier calliper.	Demonstration Performance and calculation	C102.1	PO1,PO3
2	Measurements of dimensions of given objects by Micrometer screw gauge	Demonstration Performance and calculation	C102.1	PO1,PO2,PO3
3	Determine the radius of curvature of curved surfaces by Spherometer	Demonstration Performance and calculation	C102.1	PO1,PO2,PO3
4	Determination of resistance by Ohm's law	Demonstration Performance and calculation	C102.2	PO1,PO3
5	Determination of specific resistance of given wire.	Demonstration Performance and calculation	C102.1	PO2,PO3
6	Determination of equivalent resistance in series connection of resistors	Demonstration Performance and calculation	C102.1	PO1,PO2,PO3
7	Determination of equivalent resistance in parallel connection of resistors	Demonstration Performance and calculation	C102.1	PO1,PO2,PO3
8	Draw the magnetic lines of forces of magnet of different shapes by magnetic compass	Demonstration Performance and calculation	C102.1	PO1,PO2
9	Determination of neutral points by magnetic compass	Demonstration Performance and calculation	C102.1	PO1,PO2

10	Determination of static and dynamic resistance of given P N junction diode	Demonstration Performance and calculation	C102.1	PO1,PO3
11	Determination of forbidden energy band gap in semiconductors.	Demonstration Performance and calculation	C102.1	PO2,PO3
12	Determination of pressure-volume relation using Boyle's law	Demonstration	C102.3	PO1,PO2,PO3
13	Determine Joules electrical equivalent of heat by Joule's calorimeter	Demonstration	C102.3	PO1,PO3
14	Determination of Coefficient of thermal conductivity by Searle's thermal conductivity	Demonstration	C102.3	PO1,PO2,PO3
15	Use pin method to determine index of prism	Demonstration Performance and calculation	C102.3	PO1,PO2,PO3
16	Determine the refractive index of glass slab using TIR phenomenon	Demonstration Performance and calculation	C102.3	PO1,PO2,PO3

Fourth Example is as follows:-

Course Title : Data Structure Using 'C'

Course Code: 22317

Course Outcomes:-

C317.1: Perform basic operations on arrays.

C317.2: Apply different searching and sorting techniques.

C317.3: Implement basic operations on stack and queue using array representation.

C317.4: Implement basic operations on Linked List.

C317.5: Implement program to create and traverse tree to solve problems.

CO relevance with the experiment is as follow:-

Data Structures Using 'C' (22317)

Practical- Course Outcome matrix**Course Outcomes (COs)**

- a. Perform basic operations on arrays.
- b. Apply different searching and sorting techniques.
- c. Implement basic operations on stack and queue using array representation.
- d. Implement basic operations on Linked List.
- e. Implement program to create and traverse tree to solve problems.

S. No.	Practical Outcome	CO a.	CO b.	CO c.	CO d.	CO e.
1.	Program to perform operations on array	√	-	-	-	-
2.	Search a data using linear search	-	√	-	-	-
3.	Search a data using binary search	-	√	-	-	-
4.	Program to sort an array using bubble sort	-	√	-	-	-
5.	Program to sort an array using selection sort	-	√	-	-	-
6.	Program to sort an array using insertion sort	-	√	-	-	-
7.	Perform push and pop operations on stack	-	-	√	-	-
8.	Perform insert and delete operations on linear queue using array	-	-	√	-	-
9.	Perform insert and delete operations on circular queue using array	-	-	√	-	-

10.	Perform operation on singly linked list	-	-	-	√	-
11.	Perform operation on circular singly linked list	-	-	-	√	-
12.	Perform traversing on binary search tree	-	-	-	-	√

Fifth Example is as follows:-

Course Title : ADVANCE JAVA PROGRAMMING Course Code: 22517

Course Outcomes:-

C517.1: Develop programs using GUI framework (AWT and Swing).

C517.2: Handle events of AWT and Swing Components.

C517.3: Develop programs to handle events in Java Programming.

C517.4: Develop programs using Networking concepts.

C517.5: Develop programs using database.

C517.6: Develop programs using servlets.

CO relevance with the experiment is as follow:-

Practical - Course Outcome Matrix

Course Outcome:							
a. Develop program using GUI framework (AWT and Swing)							
b. Handle events of AWT and Swing Components.							
c. Develop programs to handle events in Java Programming.							
d. Develop Java Programs using Networking Concepts.							
e. Develop programs using Database.							
f. Develop programs using Servlets.							
S. No.	Title of the Practical	CO a.	CO b.	CO c.	CO d.	CO e.	CO f.
* 1	Write a program to demonstrate the use of AWT components like Label, Textfield, TextArea, Button, Checkbox, RadioButton etc.	√	-	-	-	-	-
* 2	Write a program to design a form using the components List and Choice.	√	-	-	-	-	-
* 3	Write a program to design simple calculator with the use of GridLayout	√	-	-	-	-	-
* 4	Write a program to create a two-level card deck that allows the user to select component of Panel using CardLayout	√	-	-	-	-	-
* 5	Write a program using AWT to create a menubar where menubar contains menu items such as File, Edit, View and create a submenu under the File menu: New and Open.	√	-	-	-	-	-
* 6	Write a program using swing to display a ScrollPane and JComboBox in an Japplet with the items – English, Marathi, Hindi, Sanskrit.	√	√	-	-	-	-
* 7	Write a program to create a Jtree.	-	√	-	-	-	-

8	Write a program to create a JTable.	-	√	-	-	-	-
9	Write a program to launch a JProgressBar	-	√	-	-	-	-
* 10	Write a program to demonstrate status of key on Applet window such as KeyPressed, KeyReleased, KeyUp, KeyDown	√	√	√	-	-	-
* 11	Write a program to demonstrate various mouse events using MouseListener and MouseMotionListener interface	√	√	√	-	-	-
* 12	Write a program to demonstrate the use of JTextField and JPasswordField using Listener Interface	√	√	√	-	-	-

Advanced Java Programming (22517)

13	Write a program to demonstrate the use of WindowAdapter class.	√	√	√	-	-	-
* 14	Write a program to demonstrate the use of InetAddress class and its factory methods.	-	-	-	√	-	-
* 15	Write a program to demonstrate the use of URL and URLConnection class and its methods	-	-	-	√	-	-
16	Write a program to implement chat Server using Server Socket and Socket class.	-	-	-	√	-	-
17	Write a program to demonstrate use of Datagram Socket and Datagram Packet	-	-	-	√	-	-
* 18	Write a program to insert and retrieve the data from database using JDBC	-	-	-	-	√	-
19	Write a program to demonstrate the use of PreparedStatement and ResultSet interface	-	-	-	-	√	-
20	Write a program to update and delete a record from a database table.	-	-	-	-	√	-
21	Write a program to demonstrate the use of HttpServlet as a parameterized servlet	√	-	-	-	-	√
* 22	Write a Servlet program to send username and password using HTML forms and authenticate the user	√	-	-	-	-	√
23	Write a program to create Session using HttpSession class	√	-	-	-	-	√
24	Write a program to implement Session tracking using Cookies.	√	-	-	-	-	√

2.2.4 Quality of Students Projects and Report Writing (35)

Institute Marks

35.00

A. Identification of projects and allocation methodology (3)

Institute Marks

3.00

Project allocation methodology:

- Our department's HOD is the project coordinator. HOD tells students to form a team. Each project team varies from one to four students. The team comprises of maximum 4 members.
- Project Team is formed based on the inclination of the students in their technical area of interest. According to their field of interest a team is formed.
- HOD asks students to submit area of domain, area of specialization and project synopsis within stipulated time. Project Groups select multiple topics in their area of interest and considering latest developments in the industry or benefit for the society.
- Projects are acknowledged to appropriate context. The need of the project and the end users of the project are confirmed for the current framework. They have given the knowledge of previous year projects also and ensure no repetition of project work and also encourage students to develop the previous works.
- The problem definition with their requirements and constraints are checked. The student's projects are carefully chosen in line with department mission, vision and Program outcomes.
- The knowledge, approach, skill set, demand and interest of the students to implement the project are considered to sanction and commence the projects.
- HOD assigns the project guide according to the area of specialization and working experience of the faculty.
- Faculty profile should match with the domain of the student's project.
- In academic schedule batch wise time slot is given to the students for their project work in both semester. Students are also permitted to work for their projects beyond the working hours. They are also allowed to consume the laboratory facilities for their projects.
- The student accomplishes literature survey and prepares a diary showing the weekly updates of the project.
- Faculty members gave their full support in guiding the students during contact hours.
- Wi-Fi facility is also made available to the students for the benefit and betterment of their project work.
- All the faculties of the department encourage students not only to participate in project exhibitions. The project exhibition was aimed to provide common platform to exhibit their innovations and their work towards excellence in latest technology but also to publish their project work in reputed journals/conferences.

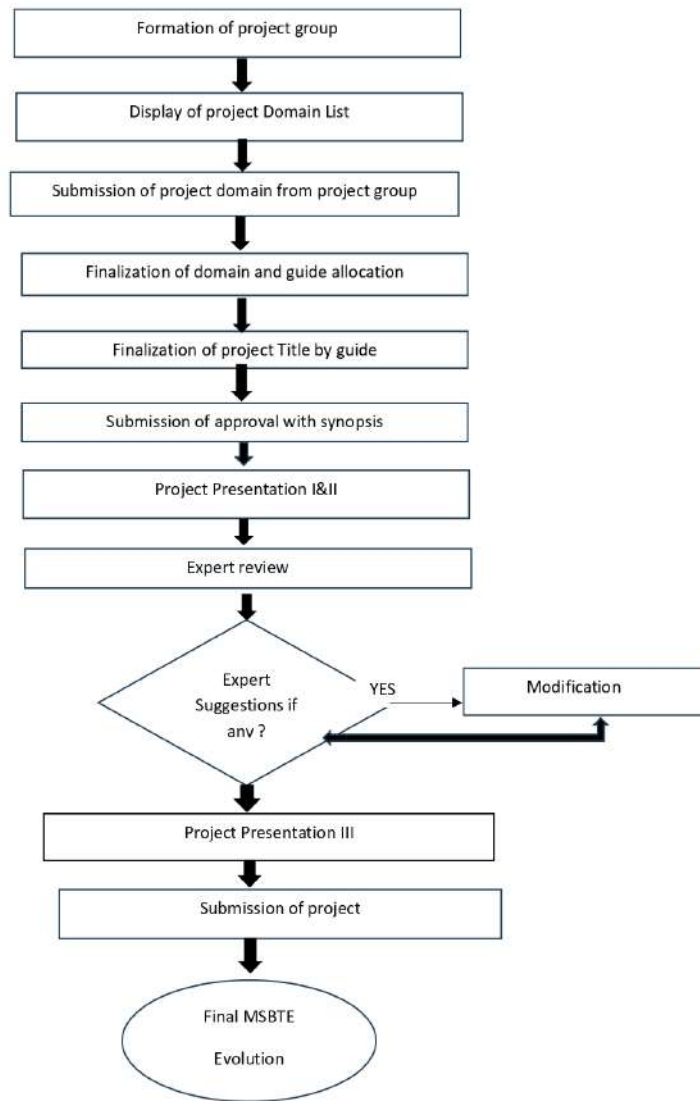


FIG 2.2.4.1 Identification of projects and allocation methodology

• Academic Year 2022-2023 CPP Project List

R. N.	Name of Student	Project Title	Area of Specialization	Type of Project(Hardware interfacing or Pure Software)	Project Guide
1	PATIL DARSHANA MANOHAR	"AI Desktop Voice Assistant"	Application Based	Pure Software	Mrs. A. A. Deshpande
2	KUMBHAR ADARSH RA JARAM				
3	CHILEKAR RUTVIK DILIP				
4	INAMDAR JASMIN BANDENAVAJ				
5	SHAIKH MUSKAN ABDUL	" Graphical Password based on CAPTCHA authentication"	Web based	Pure Software	Mrs. N. R. Dangi
6	SONI SAUMYAANURAG KAMAL				
7	RIYA PRAVIN JANGAM				
8	SONI NEERAJ RAKESH				
9	KATAMBE RASHMI SHRIRANG	"Online Transaction Fraud Detection"	Sponsored, Web based	Pure Software	Mr. A. M. Dhepe
10	SONAWANE JYOTI VIJAY				
11	SHINDE MANSI RAJU				
12	AMANKAR MANSI ANKUSH				
13	SHINDE VITTHAL SATISH	"Application of Data Mining In Educational Database for Predicting Academic Trends and Patterns"	Data Mining, Sponsored	Pure Software	Mr. S. B. Khadke
14	DHOTRE DINESH BALU				
15	AHIRE GAYATRI SANJAY				
16	MALI PRERANA BHASKAR				

17	SHINDE AKSHATA (OTO)	"Airport network flight scheduler"	Web based	Pure Software	Mrs. P. S. Kardile
18	SHINDE SARIKA				
19	PARIHAR OM (OTO)				
20	MAGAR MANSI RAMDAS				
21	JANGAM DIKSHA SUNIL	"My Workout Tracker"	Application based	Pure Software	Mrs. H. G. Wani
22	PICHA REEYA TUSHAR				
23	JAGTAP CHAITANYA SATISH				
24	GAIKWAD PRATHMESH BHAURAO				
25	KAMBLE UTKARSH	"Online Medical Store"	Web based	Pure Software	Ms. Chetana Chaudhary
26	BHARATE RUSHIKESH				
27	SONAWANE OM AJIT				
28	SAWALE SUSHIL	"Handwriting Digital Recognition"	Application based	Pure Software	Mrs. R. G. Patil
29	LALLOTI SAMEER ANWAR				
30	KUMBHAR KASHINATH				
31	SHARMA SANDHYA (OTO)				
32	KALE ADITYA (OTO)	"Disater Management System"	Application based	Pure Software	Mrs. R. G. Patil
33	PATIL PARTH (OTO)				
34	UDAY KAMBLE				
35	SURAVASE DIVYA				

B. Types and relevance of the projects and their contribution towards attainment of POs and PSOs (5)

Institute Marks

5.00

Project domains:

- Current academic projects are mapped to POs and PSOs.
- Each project is evaluated with internal marks and is graded according to their project quality and with their contribution towards attainment of PO's.
- The types of project related to the various domains listed below :
 - Computer Architecture
 - Networking
 - Image Processing
 - Data Mining
 - Security and Cryptography
 - Software Engineering and Software Systems
 - Android Application development
 - Application Based
 - Web based

Academic Year 2022-2023 CPP Project List

Sr. No.	Project Title	Area of Specialization	Project Guide	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
1	"AI Desktop Voice Assistant"	Application Based	Mrs. A. A. Deshpande	√	√	√	√		√	√		√
2	" Graphical Password based on CAPTCHA authentication"	Web based	Mrs. N. R. Dangi	√	√	√	√		√	√		√
3	"Online Transaction Fraud Detection"	Sponsored, Web based	Mr. A. M. Dhepe	√	√	√	√		√	√	√	√

4	“Application of Data Mining In Educational Database for Predicting Academic Trends and Patterns”	Data Mining, Sponsored	Mr. S. B. Khadke	√	√	√	√		√	√		√
5	“Airport network flight scheduler”	Web based	Mrs. P. S. Kardile	√	√	√	√		√	√		√
6	“My Workout Tracker”	Application based	Mrs. H. G. Wani	√	√	√	√		√	√	√	√
7	“Online Medical Store”	Web based	Ms. Chetana Chaudhary	√	√	√	√		√	√		√
8	“Handwriting Digital Recognition”	Application based	Mrs. R. G. Patil	√	√	√	√		√	√		√
9	“Disater Management System”	Application based	Mrs. R. G. Patil	√	√	√	√		√	√		√

Table 2.2.4.1 Contribution of the projects towards attainment of POs and PSOs

CAPSTONE PROJECT PLANNING (CPP-22058) CO-PO-PSO MAPPING

Course Code: C058		Course Name: Capstone Project Planning						Year : Third		Semester: Fifth	
CO	PO							PSO			
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2		
C058.1	3	3	3	2	2	3	3	3	3		

C058.2	3	3	3	2	2	3	3	3	3
C058.3	3	2	3	2	2	3	3	3	3
C058.4	2	2	2	2	3	2	3	2	2
C058.5	2	2	2	2	3	2	3	2	2
C058.6	3	2	2	3		3	2	3	3
C058.7	3	2	2	2	2	3	3	3	3

CAPSTONE PROJECT – Execution and Report Writing (CPP-22060) CO-PO-PSO MAPPING

Course Code: C060		Course Name: Capstone Project Execution and Report Writing					Year : Third		Semester: Sixth	
CO	PO							PSO		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	
C060.1	3	3	3	2	2	3	3	3	3	
C060.2	3	3	2	2	2	3	3	3	3	
C060.3	3	3	2	2	2	3	3	3	3	
C060.4	3	2	2	3		3	3	2	3	
C060.5	2	2	2	2	2	2	3	2	2	
C060.6	2	2		2	3	2	3	2	2	
C060.7	2	2	2	2	3	2	3	2	2	
C060.8	3	2	2	2	2	3	3	3	3	
C060.9	3	2	2	2	2	3	3	3	3	

C. Process for monitoring and evaluation (5)

Institute Marks

5.00

- Students maintain a diary for project.
- Progress of students' project work is assessed by weekly discussion as per time table.
- Project group students should meet their allotted guide weekly once and questioned to describe their work and progress they have done in their project in that week.
- They should submit their progress report weekly once related to their project and to get approved by their allotted guide.
- The project guides will evaluate the report submitted by the students and help them to clarify their doubts related to project and guide them in their project work.
- Project guide will assess each and every student of the project team and check their involvement in the project and make them work in right way.
- The progress and evaluation of the work is discussed at every review by the project committee members and coordinator.
- Students are judged based on the Idea of the project, hardware and software configuration used in project, presentation and queries answered and the demonstration, progression of their work.
- All the review marks are considered for the internal assessment.
- A final project report is prepared with proper documentation in design and installation procedures. A soft copy of project report is checked by respective guide and proper corrections are ensured.
- On the basis of all these activities Project is evaluated by Internal and External Examiner.

4. TEACHING AND EXAMINATION SCHEME

Teaching Scheme			Credit (L+T+P)	Examination Scheme											
L	T	P		Theory						Practical					
				Paper Hrs.	ESE		PA		Total		ESE		PA		Total
			Max		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
-	-	2	2	--	--	--	--	--	--	25@	10	25	10	50	20

Legends: L-Lecture; T – Tutorial/Teacher Guided Theory Practice; P - Practical; C – Credit, ESE - End Semester Examination; PA - Progressive Assessment

PROJECT PROPOSAL FORMAT IS AS FOLLOWS:-

The selection of the *Capstone Project title* must have emphasis to the Elective courses/ Elective Group taken for the study and exam for 5th and 6th semester. The students will then work on the identified problem/task through a rigorous process of understanding and analyzing the problem, conducting a literature search, deriving, discussing (monitored by the guide every fortnight) and designing the *Semester V 'Project Proposal'* with the following *sub-titles*:

- a) Rationale (one page)
- b) Introduction
- c) Literature Survey
- d) Problem Definition
- e) Proposed Methodology of solving Identified problem
- f) In-case some prototype has to be fabricated then its tentative design and procedure for making it should be part of the proposal.
- g) Resources and consumables required.
- h) Action Plan (sequential list of activities with probable dates of completion)

As soon as the 'Project Proposal' is approved by the teacher, the student will begin to maintain a dated '*Project Logbook*' for the whole semester. This is a sort of a 'weekly diary' indicating all the activities conducted by the student every week in the semester to complete the project. This '*project logbook*' should be got signed by the teacher at regular intervals for progressive assessment to match the project proposal. If this is maintained sincerely and truthfully by the student, it will be very helpful in compiling the 'Project Report' at the end of

PROJECT REPORT FORMAT SHOULD HAVE FOLLOWING POINTS:-

10. PROJECT REPORT

At the end of fifth Semester, the student will prepare a Semester V 'Project Report' with the following sub-titles:

- Certificate (in the Format given in this document as annexure A)
- Acknowledgements
- Abstract (in one paragraph not more than 150 words)
- Content Page
- Chapter-1 Introduction and background of the Industry or User based Problem
- Chapter-2 Literature Survey for Problem Identification and Specification,
- Chapter-3 Proposed Detailed Methodology of solving the identified problem with action plan
- References and Bibliography

Note: The report should contain relevant diagrams and figures, charts.

GUIDELINES FOR PROGRESSIVE ASSESSMENT IS AS FOLLOWS:-

12. PROGRESSIVE ASSESSMENT (PA) GUIDELINES

15 Marks are allocated for the formal progressive assessment. However, following points need consideration during the three times of formal progressive assessment of the students at the end of 4th, 12th and 14th week.

- a) *Fortnightly monitoring* by the mentoring teachers is necessary and marks given progressively (even the gradual chapter preparation) so that that students will not copy earlier reports or get things done or reports from the market. The *students should not be awarded marks* if they have not done on their own.
- b) For progressive assessment at the end of 14th week, students should be asked to give the power point presentation before group of teachers and junior students (so that junior students may also get awareness about the capstone project work they have to carry out in future).
- c) Although marks for *portfolio preparation* is to be given at the end of 14th week, students should be asked to bring their partly prepared portfolio (relevant sections prepared) also during their assessment at the end of 4th week and 12th week.
- d) Marks for portfolio preparation should be based only on proper preparation of portfolio by writing answers to most of the prompts (self-questions to students) in the portfolio. These marks should not be based on the mistakes indicated by students in their working (while answering the prompts) and corrective actions taken by them.
- e) The students would be awarded marks for their efforts (In some cases it may happen that due to some reasons such as unavailability of some material or component or some other resources, students may not be able to complete the project, but they have tried their best, in such cases students would be given appropriate marks if they have done enough efforts.)
- f) *Originality of the report* (written in own words) would be given more importance rather than use of glossy paper or multi-colour printing.

12.1 Progressive Assessment (PA) Criteria

Allocation Criteria of the *25 marks* are for the Progressive Assessment (PA).

S. No.	Criteria	Marks
First Progressive Assessment at the end of 4th week		
1	Problem Identification/Project Title (Innovation /Utility of the Project for industry/ User/Academia) marks to be also given based on (i) Accuracy or specificity of the scope and (ii) Appropriateness of the work with reference to desired course outcomes.	02
2	Industrial Survey and Literature Review: marks to be given based on extent/volume and quality of the survey of Industry / Society / Institutes/Literature/Internet for Problem Identification and possible solutions	02
3	General Behaviour: initiative, resourcefulness, reasoning ability, imagination/creativity, self-reliance to be assessed Note: Oral feedback on general behaviour may also be given whenever relevant/ required during day to day guidance and supervision. Only written feed-back/suggestions	00
Second Progressive Assessment at the end of 12th week		
4	Project Proposal. Marks to be given also based on appropriateness, flexibility, detail and clarity in methods/planning. (In case of working models, detailed design and planning of fabrication/assembly of the prototype has to be also assessed). This proposal should include whole project including work to be done in sixth semester	03

S. No.	Criteria	Marks
5	<p>Execution of Plan in fifth semester (Since project is to be fully completed in sixth semester, the part of the project which is planned to be completed in fifth semester is only to be evaluated: marks to be also given based on ability to collect relevant information, ability to follow correct procedure, manipulative skills, ability to observe, record & interpret, ingenuity in the use of material and equipment, target achievement)</p> <p>In case of working models, quality of workman ship (including accuracy in dimensions, shape, tolerance limits), appropriateness of raw materials/components/ technology being used, functioning of the prototype, cost effectiveness, marketability, modernity etc. has to be also assessed.</p>	02
6	<p>Log book (for work done in fifth semester, detailed and regular entry would be basis of marks)</p>	02
7	<p>General Behaviour (persistence, interest, confidence, problem solving ability, decision making ability, initiative to act, team spirit, sharing of material etc., participation in discussions, completion of individual responsibilities, leadership)</p> <p>Note: Oral feedback on general behaviour should also be given whenever relevant/ required during day to day guidance and supervision. Only written feed-back./suggestions</p>	00
Third Progressive Assessment at the end of 14th week		
8	<p>Portfolio for Self learning and reflection (marks based on amount of</p>	04

	reflection and completion of the portfolio for work done in fifth semester)	
9	Final Report writing including documentation. (marks based on: clarity in presentation and organization; styles and language; quality of diagrams, drawings and graphs; accuracy of conclusion drawn; citing of cross references; suggestion for further research/project work) Report has to be prepared for work done in fifth semester and planning for sixth semester work.	06
10	Presentation (presentation skills including communication skills to be assessed by observing quality of presentations and asking questions during presentation and viva/voce) Report has to be prepared for work done in fifth semester and plan for sixth semester.	02
11	Defence (ability to defend the methods/materials used and technical knowledge, and involvement of individual to be assessed by asking questions during presentation and viva/voce)	02
Total		25

COURSE NAME:- CAPSTONE PROJECT – Execution and Report Writing (CPP-22060)

- i) Prepare project report after performing due plagiarism check using appropriate tools.

4. TEACHING AND EXAMINATION SCHEME

Teaching Scheme			Credit (L+T+P)	Examination Scheme											
L	T	P		Theory						Practical					
				Paper Hrs.	ESE		PA		Total		ESE		PA		Total
					Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
-	-	4	4	--	--	--	--	--	--	50#	20	50~	20	100	40

Legends: L-Lecture; T – Tutorial/Teacher Guided Theory Practice; P - Practical; C – Credit, ESE - End Semester Examination; PA - Progressive Assessment

Criteria of Marks for PA for Capstone Project -Execution and Report Writing.

S. No.	Criteria	Marks
1	Project Proposal /Identification	10
2	Punctuality and overall contribution	
3	Project Diary	
4	Execution of Plan during sixth semester	20
5	Project Report including documentation	15
6	Presentation	05
Total		50

Criteria of Marks for ESE for Capstone Project -Execution and Report Writing

S. No.	Criteria	Marks
1	Project Proposal	05
2	Punctuality and overall contribution	
3	Project diary	
4	Execution of Plan during sixth semester	10
5	Project Report including documentation	10
6	Presentation	10
7	Question and Answer	15
Total		50

FINAL PROJECT REPORT FORMAT IS AS FOLLOWS:-

6. Project report

During the final Semester, the student will prepare a 'Project Report' in continuation with the activities conducted in fifth semester under Project Planning having following sub-titles:

Suggested contents of the Project report

- Title page (with name of team members and mentor teacher)
- Certificate (in the Format given in this document as annexure A)
- Acknowledgements (this may need revision at the end of the final semester)
- Abstract (in one paragraph not more than 150 words)
- Content Page

Chapters

1. Chapter-1 Introduction (background of the Industry or User based Problem/Task)
2. Chapter-2 Literature Survey (to finalise and define the Problem Statement)
3. Chapter-3 Scope of the project
4. Chapter-4 Methodology
5. Chapter-5 Details of designs, working and processes



6. Chapter-6 Results and Applications
7. Chapter-7 Conclusions And future scope
8. Appendix (if any)
9. References and Bibliography

D. Process to assess individual and team performance (5)

Institute Marks

5.00

- Individual and team performance of the student is assessed based on the project presentation, knowledge and progress in the work.
- Students are judged based on the Idea of the project, hardware and software configuration used in project, presentation and queries answered and the demonstration, progression of their work as said in above point.
- Project progress seminars are conducted once in every month by the team of their respective guide and all faculty members. The project seminar should be given by all the project team members.
- Each student in the project team is assessed based on the points such as delivery of the seminar, conceptual understanding, confidence, viva voce and progress work they show to their guide.

E. Quality of deliverable, working prototypes (12)

Institute Marks

12.00

- Final project demo for the working prototype with proper hardware and software configuration and the project report are evaluated by a team of their respective guide, and HOD.
- The projects are evaluated and are given internal assessment marks and are evaluated according to the project contribution towards attainment of PO's and PSO's.
- The projects carried out by the students are either Industry Sponsored or Application based.
- Industry Sponsored projects are based on their actual requirements and are directly put to use.
- In application based projects, students prepare projects according to current context.
- Quality of deliverable, working prototypes are evaluated based on new innovative ideas, skills or abilities of students, knowledge on various aspects, Confidence level of the students, teamwork spirit, implementation and deployment of the project, document preparation and presentation, social cause by the project etc.

Best Project Evaluation scheme is as follows:-

- Innovations, Innovative ideas, recognize the need for lifelong learning
- Contemporary, modern-day issues, organization of the project report
- Listening to, understanding and answering questions, handling questions properly
- Publications, paper presentations and internal and external marks,
- Project exhibition results etc.

F. Papers published /Awards/ Recognition received by projects at State/ National level (5)

Institute Marks

5.00

Following table shows awards received by projects-

Sr. No.	Academic year	Papers published /awards/ recognition received by projects at state/ national level	Name of event
1)	2022-2023	First prize to project on "AI Desktop Voice Assistant"	State Level Project Competition By CompShiksha Institute 10/3/2023
2)	2021-2022	Second prize to project on "Face Mask Detection"	State Level Project Competition By CompShiksha Institute 11/3/2022
3)	2019-2020	First prize for Paper on Project "Processing Mining System"	State Level technical paper presentation competition 10/02/2020

Industry Sponsored Projects: -

Sr. No.	Name of project	Academic Year	Area of specialization	PO and PSO mapping
1	Fingerprint Based Banking System Sponsored by:- NRS Technology Software Solutions, Web Solutions	2018-2019	Hardware, Networking & Software Programming	PO1,2,3,4,6,7 PSO1,2.
2	Live Chat Server Sponsored by :- Aairam Technologies LLP	2018-2019	Hardware, Networking & Software Programming	PO1,2,3,4,6,7 PSO1,2.

3	Auto Hacker Detector System Sponsored by:- Hari Om Construction	2018-2019	Hardware, Networking & Software Programming	PO1,2,3,4,6,7 PSO1,2.
4	Processing Mining System Sponsored by:- Sai Computer Education Centre	2019-2020	Software Programming	PO1,2,3,4,6,7 PSO1,2.
5	W-LAN Monitoring system Sponsored by:- Vikas Infotech Computer Training & Software Development	2019-2020	Hardware, Networking & Software Programming	PO1,2,3,4,6,7 PSO1,2.
6	Vocal for Local Sponsored by:- SGMS Infotech LLP	2021-2022	Hardware, Networking & Software Programming	PO1,2,3,4,6,7 PSO1,2.
7	Face Mask Detection Sponsored by:- Midbrains Technologies Ltd.	2021-2022	Hardware, Networking & Software Programming	PO1,2,3,4,6,7 PSO1,2.
8	Online Transaction Fraud Detection Sponsored by:- Midbrains Technologies Ltd.	2022-2023	Hardware, Networking & Software Programming	PO1,2,3,4,6,7 PSO1,2.
9	Application of Data Mining in Education Database for Predicting Academic Trends and Patterns Sponsored by:- Midbrains Technologies Ltd.	2022-2023	Hardware, Networking & Software Programming	PO1,2,3,4,6,7 PSO1,2.

2.2.5 Industry Interaction and Industry Internship/Training (30)

Institute Marks

30.00

A. Industry supported Labs (2)

Institute Marks

2.00

- To strengthen interaction with industries and to keep our students updated with the latest trends in Computer Engineering Institute faculty tried to increase Industry Interaction with students by different ways.
- Industry interactions help the students to acquire the practical knowledge. So in order to improve the technical abilities various industrial activities are carried out.
- The industries and industry workforces are involved in the core curriculum implementation. The nature and degree of involvement along with the details are described in the format in the below pages.
- The following pages includes the information data on industrial visit, vocational training, expert lecture, industry sponsored projects, MOU's with industry, placement of students etc.

SR. NO.	ACTIVITY/PROGRAM DETAILS	NUMBER OF EVENTS		
		ACADEMIC YEAR		
		2020-2021	2021-2022	2022-2023
1	Implant training (No. of Companies)	02	02	03
2	Industrial visits	02(ONLINE)	08	07
3	Career Guidance Lecture/ Expert lecture	02(ONLINE)	07	10
4	Industry sponsored Projects	02(ONLINE)	02	02
5	MOU with industries	02	04	06

Table 2.2.5.1 Industry Institute Interaction

Initiatives related to industry interaction

MOU's with Industries: - MOU's was done with industries to emphasize on

- (a) Internship
- (b) Project Workshop for Students
- (c) Industrial Visits/Guest Lecture/Seminar
- (d) Students specific Training
- (e) Faculty Development Program

B. Delivery of appropriate Course work by Industry experts (5)

1. Guest Lecturers/Seminars

- In every academic year as a part of Industry Institute Interaction, a number of guest lectures by Industry Personnel and interaction programs have been conducted. As a result of this the students have been prepared for the industry and also results in the improvement of skill set of the students, which lead to placement improvement.

Sr. No.	Academic Year	Total Program Conducted
1	2020-2021	02 (ONLINE)
2	2021-2022	06
3	2022-2023	07

Academic Year:-2022-2023

CAY 2022-2023

Sr.No.	Topic Name	Date/ Month/ Year	Resource person with designation	No. of students	Relevance to PO's & PSO's
1	Interview Techniques and soft skills	12/11/2022	Mr. Anil Mahajan Project Head, Clean Max Solar Technology Pvt. Ltd. Pune	150	PO1,PO2, PO5, PO7, PSO1,PSO2
2	Guest Lecture on Carrier In IT Industries	02/11/2022	Mr. Shiv Sharma Jetking Learning Center	84	PO4,PO6,PO7, PSO1,PSO2
3	Latest Programming Languages in Industry	18/11/2022	Ms. Sandhya Salunke EduCADD,Pune	45	PO2,PO3,PO4, PO6,PO7, PSO1,PSO2
4	Data Visualisation	25/11/2022	Mr. Mangesh S. Palwade (Power BI Developer, Omnepresent Technologies, Pune)	72	PO1,PO2,PO4, PO5,PO6,PO7, PSO1
5	Project Guidance	03/12/2022	Mr. Rajendra Barge Raj Computers, Chinchwad	80	PO2,PO3,PO4, PO6,PO7, PSO1,PSO2

6	Entrepreneurship Development Program	11/12/2022	Mr. P. H. Lakal Managing Director, Softs LLP, Pune	60	PO1,PO2,PO5, PO6,PO7,PSO1, PSO2
7	Soft Skill Development	7/2/2023	Mr. Vipul Kunkar Team Gillette Guard, Pune	69	PO1,PO5, PO7, PSO1

Academic Year:-2021-2022**CAYm1 2021-2022**

Sr.No.	Topic Name	Date/ Month/ Year	Resource person with designation	No. of students	Relevance to PO's & PSO's
1	Guest Lecture on Personality Development	10/3/2022	Mr. Arwind Wadkar Retd. Spaco Manager	60	PO1,PO5
2	Guest Lecture on Carrier In IT industries & Cloud Computing	17/03/2022	Mr.Shiv Sharma Operation Head Jetking Learning Center Chinchwad Pune	61	PO4,PO6,PO7, PSO1,PSO2
3	Guest Lecture on Project Guidance & Emerging Technologies	19/03/2022	Mrs. Geeta Kalia Mr. Amol S. Patil Diamond Mindglance , Akurdi, Pune	60	PO2,PO3,PO4, PO6,PO7, PSO1,PSO2
4	Guest Lecture on Networking	30/03/2022	Mr. Saurabh Rawat CEO & CO- Founder I-Medita Learning Solution LTD	61	PO1,PO2,PO4, PO5,PO6,PO7, PSO1
5	Guest Lecture on Entrepreneurship Development Program	26/3/2022	Mr. Rushikesh Rajurkar, Founder & Director, The Executive , World Trade Centre, Kharadi, Pune	60	PO1,PO2,PO5, PO6,PO7,PSO1, PSO2

6	Guest Lecture on Digital Marketing UI/UX	22/04/2022	Mr.Mitval Bijalani Mindbrains Technology, Waked, Pune	120	PO1,PO2,PO3, PO4,PO5,PSO1,
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Academic Year:-2020-2021

CAYm2 2020-2021

Sr.No.	Action taken	Date/ Month/ Year	Resource person with designation	No. of students	Relevance to PO's & PSO's
1	Guest Lecture on Career In IT Industries	30/11/2020	Mr. Shiv Sharma Jetking Learning Center	85	PO4,PO6,PO7, PSO1,PSO2
2	Guest Lecture on Project Guidance	3/12/2020	Mr.Mitval Bijalani Mindbrains Technology, Waked, Pune	90	PO2,PO3,PO4, PO6,PO7, PSO1,PSO2

C. Industrial visits/tours for students (3)

Institute Marks

3.00

- Industrial training and field visits are arranged for the students to develop their practical knowledge in the industrial environment.

Sr. No.	Academic Year	Industrial Visits Conducted
1	2020-2021	02 (ONLINE)
2	2021-2022	08
3	2022-2023	07

Visit Details:

Sr.No.	Name of Industry & Contact Details	Semester	Course Name	Name of Co-ordinator	Date of conduction of activity	No.of Beneficiaries	Relevance to PO's & PEO's (only nos)
1	Compshiksha, Morwadi, Pimpri	V	Computer Engineering	Mr.S.B.Khadke	11/11/2022	30	PO:-4,6,7 PEO:-2,3
2	Science Park , Chinchwad	I	Computer Engineering	Mr. S.B.khadke	15/10/2022	80	PO:-1,7 PEO:-2,3
3	PCMC Water Purification Centre, Sector no.23,Nigdi,Pune-44	V	Computer Engineering	Mrs. N.R.Dangi Mrs.P.S.Kardile	02/12/2022	32	PO:-1,5,7 PEO:-2,3
4	NITS Global Software Solutions Shivajinagar,Pune	VI	Computer Engineering	Mrs. P.S.Kardile	1 st week of Feb.2023	60	PO:-1,7 PEO:-2,3
5	Jetking Learning Center	IV	Computer Engineering	Mr.S.B.Khadke	13/03/2023	36	PO:-1,6,7 PEO:-2,3

Vocational Training:

Sr.No.	Name of Industry & Contact Details	Semester	Course Name	Name of Co-ordinator	Date of conduction of activity	No. of Beneficiaries	Relevance to PO's & PEO's (only nos)
1	SGMS Technology	IV	Computer Engineering	Mr.A.M.Dhepe	04/07/2022-13/08/2022	25	PO:6,7 PEO:-3
2	Mid Brains , Wakad	IV	Computer Engineering	Mr.A.M.Dhepe	04/07/2022-13/08/2022	30	PO:6,7 PEO:-3

Visit Details:

Sr.No.	Name of Industry & Contact Details	Semester	Course Name	Name of Co-ordinator	Date of conduction of activity	No.of Beneficiaries	Relevance to PO's & PEO's (only nos)
1	TATA Ficosa Automotive Systems PVT LTD	3 rd Sem	Computer Engineering	Mrs. Kardile P.S.	09/10/2019	60	PO:-4,6,7 PEO:-2,3
2	SEED Infotech	6 th Sem	Computer Engineering	Mrs.Dangi N.R.	11/01/2020	23	PO:-1,7 PEO:-2,3

Vacational Training:

Sr.No.	Name of Industry & Contact Details	Semester	Course Name	Name of Co-ordinator	Date of conduction of activity	No.of Beneficiaries	Relevance to PO's & PEO's (only nos)
1	Project Code Solutions, Shivajinagar ,Pune	IV	Computer Engineering	Mrs. Mahale. N.J	11/12/2018 TO 20/12/2018	40	PO:6,7 PEO:-3



FIG:- 2.2.5.1 TATA Ficosa Automotive Systems PVT LTD (2019-2020)

D. Industrial training/ internship (5)

Institute Marks

5.00

E. Post training/ internship Assessment (10)

Institute Marks

10.00

- Post training assessment is done in following manner-
 - Students are asked to submit the implant training report to the concerned course faculty.
 - The students are asked to present the knowledge gained through the training in the form of PPTs.
 - The concerned course teacher and the external faculty appointed by the Institute then reward marks on the basis of attendance, presentation, skill acquired and knowledge gained by taking their viva voce exam as per MSBTE schedule.
-
- **Impact of training on students learning:-**
 - **New innovative ideas are evolved.**
 - **Skills or abilities of students improved.**
 - **We'll recognize the Industry environment.**
 - **Knowledge on various aspects of project management was developed.**
 - **Confidence level of the students was boosted.**
 - **Improved teamwork spirit.**
 - **Implementation and deployment of the project for social benefits.**
 - **Document preparation and presentation.**

F. Contribution to Community related projects/activities (5)

Institute Marks

5.00

- The faculty coordinators appointed by the Head of the department are responsible for planning, scheduling and execution of all the activities related to the implant training and student project related work.
- **Industry Sponsored Projects: -**

Sr. No.	Name of project	Academic Year	Area of specialization	PO and PSO mapping
1	Fingerprint Based Banking System Sponsored by:- NRS Technology Software Solutions, Web Solutions	2018-2019	Hardware, Networking & Software Programming	PO1,2,3,4,6,7 PSO1,2.
2	Live Chat Server Sponsored by :- Aairam Technologies LLP	2018-2019	Hardware, Networking & Software Programming	PO1,2,3,4,6,7 PSO1,2.
3	Auto Hacker Detector System Sponsored by:- Hari Om Construction	2018-2019	Hardware, Networking & Software Programming	PO1,2,3,4,6,7 PSO1,2.
4	Processing Mining System Sponsored by:- Sai Computer Education Centre	2019-2020	Software Programming	PO1,2,3,4,6,7 PSO1,2.
5	W-LAN Monitoring system Sponsored by:- Vikas Infotech Computer Training & Software Development	2019-2020	Hardware, Networking & Software Programming	PO1,2,3,4,6,7 PSO1,2.
6	Vocal for Local Sponsored by:- SGMS Infotech LLP	2021-2022	Hardware, Networking & Software Programming	PO1,2,3,4,6,7 PSO1,2.
7	Face Mask Detection Sponsored by:- Midbrains Technologies Ltd.	2021-2022	Hardware, Networking & Software Programming	PO1,2,3,4,6,7 PSO1,2.
8	Online Transaction Fraud Detection Sponsored by:- Midbrains Technologies Ltd.	2022-2023	Hardware, Networking & Software Programming	PO1,2,3,4,6,7 PSO1,2.
9	Application of Data Mining in Education Database for Predicting Academic Trends and Patterns Sponsored by:- Midbrains Technologies Ltd.	2022-2023	Hardware, Networking & Software Programming	PO1,2,3,4,6,7 PSO1,2.

2.2.6 Information Access Facilities and Student Centric Learning Initiatives (15)

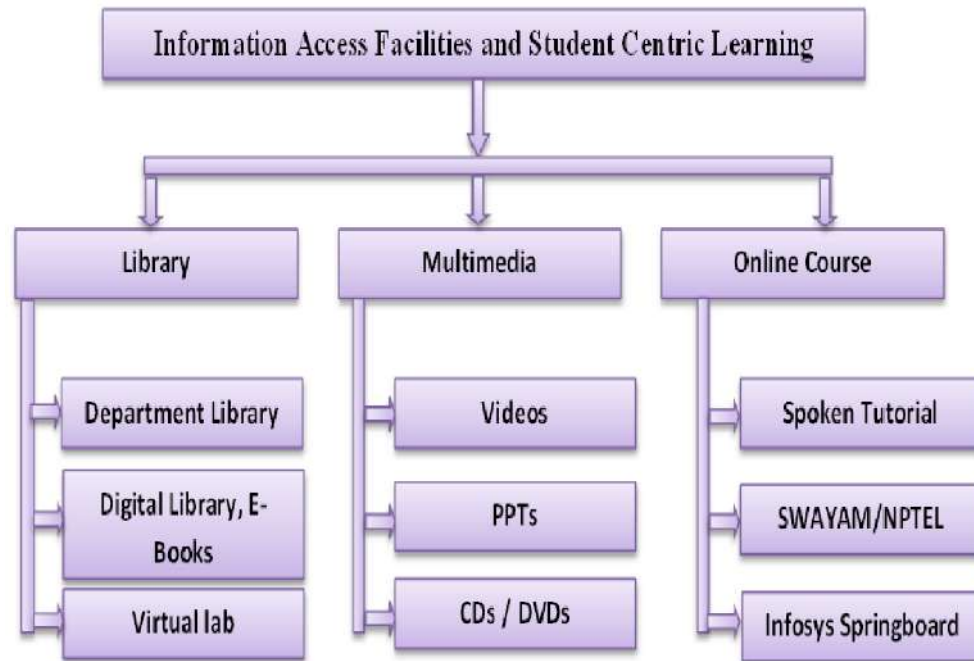
Institute Marks

15.00

A. Availability of facilities & Effective Utilization; *specify the facilities, materials and scope for self-learning, Webinars, NPTEL Podcast, MOOCs etc (10)*

Institute Marks

10.00

ICT facilities:

- Following information access facilities are provided to the students by college:

- **Department Library:** Books on every topic covered in the curriculum are available in the department, along with certain books that will provide students with additional knowledge. These books are available for students on circular basis for particular time frame, library cards are issued by librarian for them.
- **Videos:** Numerous types of data, including text, audio, photos, animation, video, and interactive material, are included in multimedia. These enable the learning process to be enhanced by the available resources. With the ability to pause, rewind, fast-forward, and replay content as often as necessary, students gain more control over the information they are given and more opportunities for deeper learning in controlled environment.
- **Access to other campus libraries:** Students are also able to use the campus libraries of other colleges.
- **CDs and DVDs:** CDs and DVDs are enormous data storage devices that hold audio, documents, and video. Students are able to keep their computer backups on DVDs.
- **Wi-Fi campus:** To enable students to access the internet, the entire campus has a high-speed internet connection that is enabled via Wi-Fi.
- **E-notes:** Electronic notes assist students in finishing homework and preparing for tests. Websites offer a plethora of resources, such as animated explanations, interactive presentations, self-help tutorials, DIY guides, instructional lectures, and instructional videos. It aids in the development of learning skills in pupils. Many websites are recommended with Curriculum by MSBTE are really beneficiaries for student learning.
- **Other than this Guest Lectures, Seminar, Technical Events, Project, Industrial Visits are also the facilities provided to the students for their overall development.**



B. Student Centric Learning Initiatives & Effective Implementation (5)

Institute Marks

5.00

- Students and faculty members were motivated to register for different courses/ online courses. Some students and faculties are registered to the Infosys Springboard.

Sr. No	Facilities	Year	Subjects	Students Benefitted	Remark
1	Multimedia/	TY	EST, NIS, AJP, PWP, ADM	All TY Students	Shown to students during lectures or practicals.
	Flash/ Video	SY	DTE, DMS	All SY Students	
2	PPTs	TY	All courses	All TY Students	Shared with Students
		SY	All courses	All SY Students	
		FY	All courses	All FY Students	
3	CD/DVD	FY/	CPH,	All Students	Shared with Students
		SY/	PROJECT		
4	E- Notes	TY	All courses	All Students	E Notes are mailed to the students by faculty
		FY/			
		SY/			
5	Websites	TY	All courses	All Students	Internet facility is made available to all students on all PCs
		SY/			

2.2.7 New Initiatives for embedding Professional Skills (15)

Institute Marks

15.00

A. Employability skill enhancement Initiatives and effective implementation (8)

Institute Marks

8.00

- For creating specific ability improvement including correspondence, expert and center employability aptitudes classes on Professional Practices, Development of Life Skills and Entrepreneurship Development are led.
- Proficient Practice and Entrepreneurship Development are trans-disciplinary scholastic division concentrated on adaptable business related learning inside advanced education.
- Proficient Practice subject gives a stage to understudies to experience exercises which will empower them to create self-confidence.
- It is accomplished in a few different ways
- Conducting Seminars
- Conducting Group Discussions
- Guest lectures on Communication Skills
- Preparing report on industrial visits expert lectures
- Organizing Paper Presentations.
- Quiz
- Entrepreneurship development

SR. NO.	ACTIVITY	SKILLS DEVELOPED
1	Paper presentation	Information Search, Structured writing, Confidence Increases, Stage Daring Increases, Communication , Concentration development
2	Quiz	Alertness, Information Search, Assertive skill, Building confidence, Ethics
3	Project Exhibition	Working in Team, Task Management, presentation skills, Time management, Leadership
4	Seminar	Listening, Interaction, Confidence Increases, Stage Daring Increases, Communication, Group management
5	Workshop	Psychomotor skills, Troubleshoot
6	Poster presentation	Creativity, Information Search, confidence, Ethics

Table 2. 2.7 Employability Skill Enhancement Program for Students

B. Personality development related Initiatives & effective implementation (7)

Institute Marks

7.00

2.2.8 Co-curricular & Extra Curricular Activities (10)

Institute Marks

10.00

3 COURSE OUTCOMES AND PROGRAM OUTCOMES (100)

Total Marks 100.00

Define the Program specific outcomes

PSO1	Computer Software and Hardware and Hardwa
PSO2	Computer Engineering Maintenance: Maintenar

3.1 Establish the correlation between the courses and the POs and PSOs (20)

Total Marks 20.00

**3.1.1 Course Outcomes (SAR should include course outcomes of one course from each semester of study, however, should be prepared for all courses)
(5)**

Institute Marks

5.00

Note : Number of Outcomes for a Course is expected to be 3 to 5.

Course Name :	C1 01	Course Year :	2022-23
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Course Name	Statements
C1 01.1	Formulate grammatically correct sentences.
C1 01.2	Summarize comprehension passages.
C1 01.3	Compose dialogues and paragraphs for different situations.
C1 01.4	Use relevant words as per context.
C1 01.5	Deliver prepared speeches to express ideas, thoughts and Emotions.

Course Name :	C1 13	Course Year :	2022-23
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Course Name	Statements
C1 13.1	Develop flowchart and algorithm to solve problems logically.
C1 13.2	Write simple C programs using arithmetic expressions.
C1 13.3	Develop C programs using control structure.
C1 13.4	Develop C programs using arrays and structures.
C1 13.5	Develop/use functions in C programs for modular programming approach.
C1 13.6	Develop C programs using pointers.

Course Name :	C2 04	Course Year :	2022-23
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Course Name	Statements
C2 04.1	Design Normalized database on given data.
C2 04.2	Create and Manage Database using SQL Command.
C2 04.3	Write PL/SQL code for given database.
C2 04.4	Apply triggers on database also create procedure and function according to condition.
C2 04.5	Apply security and confidentiality on given database.

Course Name :	C2 06	Course Year :	2022-23
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Course Name	Statements
C2 06.1	Develop programs using Object Oriented Methodology in Java.
C2 06.2	Apply the concept of inheritance for code reusability.
C2 06.3	Develop programs using multithreading.
C2 06.4	Implement Exception Handling.
C2 06.5	Develop programs using Graphics and Applet.
C2 06.6	Develop programs for handling I/O and file streams.

Course Name :	C3 03	Course Year :	2022-23
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Course Name	Statements
C3 03.1	Develop programs using GUI Framework (AWT and Swing).
C3 03.2	Handle events of AWT and Swings components.
C3 03.3	Develop programs to handle events in Java Programming.
C3 03.4	Develop Java programs using networking concepts.
C3 03.5	Develop programs using database.
C3 03.6	Develop programs using Servlets.

Course Name :	C3 09	Course Year :	2022-23
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Course Name	Statements
C3 09.1	Display message on screen using Python script on IDE.
C3 09.2	Develop python program to demonstrate use of Operators.
C3 09.3	Perform operations on data structures in Python.
C3 09.4	Develop functions for given problem.

C3 09.5	Design classes for given problem.
C3 09.6	Handle Exception.

3.1.2 CO-PO matrices of courses selected in 3.1.1(Six matrices to be mentioned; one per semester from 1st to 6th semester) (5)

Institute Marks

5.00

1 . course name : C201

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7
C101.1	1 ▾	1 ▾	- ▾	- ▾	1 ▾	2 ▾	1 ▾
C101.2	1 ▾	1 ▾	- ▾	- ▾	1 ▾	2 ▾	1 ▾
C101.3	1 ▾	1 ▾	- ▾	- ▾	1 ▾	2 ▾	1 ▾
C101.4	1 ▾	1 ▾	- ▾	- ▾	1 ▾	2 ▾	1 ▾
C101.5	1 ▾	1 ▾	- ▾	- ▾	1 ▾	2 ▾	1 ▾
Average	1.00	1.00	0.00	0.00	1.00	2.00	1.00

2 . course name : C213

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7
C113.1	2 ▾	3 ▾	2 ▾	- ▾	- ▾	1 ▾	2 ▾
C113.2	3 ▾	2 ▾	2 ▾	2 ▾	- ▾	2 ▾	2 ▾
C113.3	2 ▾	2 ▾	2 ▾	3 ▾	- ▾	2 ▾	2 ▾
C113.4	2 ▾	3 ▾	2 ▾	2 ▾	1 ▾	2 ▾	2 ▾
C113.5	3 ▾	2 ▾	2 ▾	2 ▾	2 ▾	2 ▾	2 ▾
C113.6	3 ▾	2 ▾	2 ▾	2 ▾	2 ▾	2 ▾	2 ▾
Average	2.50	2.33	2.00	2.20	1.67	1.83	2.00

3 . course name : C304

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7
C204.1	- ▾	2 ▾	2 ▾	2 ▾	1 ▾	1 ▾	2 ▾
C204.2	2 ▾	2 ▾	2 ▾	2 ▾	- ▾	1 ▾	2 ▾
C204.3	2 ▾	2 ▾	2 ▾	2 ▾	- ▾	2 ▾	2 ▾
C204.4	2 ▾	2 ▾	2 ▾	2 ▾	1 ▾	2 ▾	2 ▾
C204.5	2 ▾	2 ▾	2 ▾	2 ▾	- ▾	2 ▾	2 ▾

Average	2.00	2.00	2.00	2.00	1.00	1.60	2.00
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4 . course name : C306

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7
C206.1	2 ▾	2 ▾	2 ▾	2 ▾	- ▾	2 ▾	2 ▾
C206.2	1 ▾	2 ▾	2 ▾	2 ▾	- ▾	2 ▾	2 ▾
C206.3	1 ▾	1 ▾	2 ▾	2 ▾	- ▾	1 ▾	1 ▾
C206.4	1 ▾	2 ▾	2 ▾	2 ▾	- ▾	2 ▾	2 ▾
C206.5	1 ▾	2 ▾	2 ▾	2 ▾	- ▾	2 ▾	2 ▾
C206.6	1 ▾	2 ▾	2 ▾	2 ▾	- ▾	2 ▾	2 ▾
Average	1.17	1.83	2.00	2.00	0.00	1.67	1.67

5 . course name : C403

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7
C303.1	1 ▾	1 ▾	1 ▾	1 ▾	- ▾	1 ▾	1 ▾
C303.2	1 ▾	2 ▾	2 ▾	1 ▾	- ▾	1 ▾	1 ▾
C303.3	1 ▾	2 ▾	2 ▾	2 ▾	1 ▾	2 ▾	2 ▾
C303.4	1 ▾	2 ▾	1 ▾	1 ▾	- ▾	2 ▾	1 ▾
C303.5	1 ▾	1 ▾	1 ▾	1 ▾	- ▾	1 ▾	2 ▾
C303.6	1 ▾	2 ▾	2 ▾	2 ▾	- ▾	2 ▾	2 ▾
Average	1.00	1.67	1.50	1.33	1.00	1.50	1.50

6 . course name : C409

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7
C309.1	2 ▾	2 ▾	2 ▾	2 ▾	- ▾	1 ▾	- ▾
C309.2	1 ▾	1 ▾	1 ▾	1 ▾	- ▾	1 ▾	- ▾

C309.3	1	2	2	2	-	2	2
C309.4	1	1	1	1	-	1	2
C309.5	1	2	2	2	-	2	2
C309.6	1	2	2	2	-	2	2
Average	1.17	1.67	1.67	1.67	0.00	1.50	2.00

1 . Course Name : C201

Course	PSO1	PSO2
C101.1	1 ▾	- ▾
C101.2	1 ▾	- ▾
C101.3	1 ▾	- ▾
C101.4	1 ▾	- ▾
C101.5	1 ▾	- ▾
Average	1.00	0.00

2 . Course Name : C213

Course	PSO1	PSO2
C113.1	3 ▾	3 ▾
C113.2	3 ▾	3 ▾
C113.3	2 ▾	3 ▾
C113.4	2 ▾	2 ▾
C113.5	2 ▾	2 ▾
C113.6	3 ▾	3 ▾
Average	2.50	2.67

3 . Course Name : C304

Course	PSO1	PSO2
C204.1	2 ▾	3 ▾
C204.2	2 ▾	3 ▾
C204.3	2 ▾	3 ▾
C204.4	2 ▾	3 ▾
C204.5	2 ▾	3 ▾

Average	2.00	3.00
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4 . Course Name : C306

Course	PSO1	PSO2
C206.1	2 ▾	2 ▾
C206.2	2 ▾	2 ▾
C206.3	2 ▾	2 ▾
C206.4	2 ▾	2 ▾
C206.5	2 ▾	2 ▾
C206.6	2 ▾	2 ▾
Average	2.00	2.00

5 . Course Name : C403

Course	PSO1	PSO2
C303.1	2 ▾	2 ▾
C303.2	2 ▾	2 ▾
C303.3	2 ▾	2 ▾
C303.4	2 ▾	2 ▾
C303.5	2 ▾	2 ▾
C303.6	2 ▾	2 ▾
Average	2.00	2.00

6 . Course Name : C409

Course	PSO1	PSO2
C309.1	2 ▾	2 ▾
C309.2	2 ▾	2 ▾

C309.3	2	▼	2	▼
C309.4	2	▼	2	▼
C309.5	2	▼	2	▼
C309.6	2	▼	2	▼
Average	2.00		2.00	

3.1.3 - A Program level Course-PO matrix of all courses INCLUDING first year courses (10)

Institute Marks

10.00

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7
C101	1.00	1.00	0.00	0.00	1.00	2.00	1.00
C102	3.00	1.00	1.00	2.00	1.00	1.00	1.00
C103	3.00	1.75	1.00	1.00	1.00	1.00	1.00
C104	1.00	1.50	1.33	3.00	1.00	0.00	1.40
C105	2.60	2.60	2.60	2.00	0.00	2.20	2.40
C106	1.00	1.00	1.00	2.20	1.00	0.00	1.33
C107	1.00	1.00	0.00	0.00	1.00	2.00	2.00
C108	1.83	1.75	1.83	1.00	1.67	1.67	2.00
C109	2.00	1.50	1.60	2.00	1.50	1.00	2.00
C110	1.83	1.50	1.75	1.50	1.83	1.40	1.00
C111	2.60	1.40	1.00	1.00	1.25	0.00	1.25
C112	1.80	1.67	2.00	2.00	1.60	1.80	1.00
C113	2.50	2.33	2.00	2.20	1.67	1.83	2.00
C201	2.00	1.60	1.40	1.80	1.00	2.00	1.40
C202	1.75	1.80	2.00	2.00	0.00	1.60	2.00
C203	2.00	2.00	1.67	1.83	1.40	2.00	2.00
C204	2.00	2.00	2.00	2.00	1.00	1.60	2.00
C205	1.40	1.40	1.60	1.20	1.50	1.20	1.00
C206	1.17	1.83	2.00	2.00	0.00	1.67	1.67
C207	1.00	1.60	1.60	1.75	2.00	1.00	1.00
C208	2.60	2.40	2.60	2.60	1.75	2.33	2.40
C209	2.00	1.40	1.60	1.60	1.40	1.40	1.40
C210	2.00	1.00	2.00	2.00	1.50	1.50	2.00
C301	2.33	2.00	2.00	2.00	2.33	2.00	2.33
C302	3.00	2.83	2.67	2.50	1.00	1.60	1.67
C303	1.00	1.67	1.50	1.33	1.00	1.50	1.50
C304	2.00	1.60	1.75	2.40	1.75	1.50	2.00

C305C	1.50	2.60	2.00	2.50	2.00	2.00	2.00
C306	2.00	1.67	2.00	1.80	1.00	2.00	2.00
C307	2.71	2.29	2.43	2.14	2.33	2.71	2.86
C308	1.80	1.00	1.00	0.00	2.40	2.00	2.00
C309	1.17	1.67	1.67	1.67	0.00	1.50	2.00
C310	2.50	2.00	2.00	2.33	1.25	2.00	2.00
C311	2.17	2.60	2.67	3.00	2.40	2.20	2.50
C312B	2.00	2.25	2.75	2.80	2.40	2.40	2.25
C313	3.00	2.60	2.60	2.20	1.40	3.00	2.60
C314	2.67	2.33	2.13	2.11	2.25	2.67	3.00

3.1.3 - B Program level Course-PSO matrix of all courses INCLUDING first year courses

Course	PSO1	PSO2
C101	1.00	0.00
C102	0.00	0.00
C103	0.00	0.00
C104	2.00	2.00
C105	1.00	0.00
C106	1.80	1.60
C107	2.00	0.00
C108	2.00	2.00
C109	2.00	2.00
C110	2.00	0.00
C111	0.00	0.00
C112	1.60	0.00
C113	2.50	2.67
C201	3.00	3.00
C202	2.00	2.00
C203	2.83	2.67
C204	2.00	3.00
C205	2.00	1.00
C206	2.00	2.00
C207	1.75	1.00
C208	2.40	2.25
C209	3.00	3.00
C210	2.33	2.60
C301	0.00	0.00
C302	2.50	2.33
C303	2.00	2.00
C304	2.00	1.80

C305C	2.00	2.00
C306	2.00	2.00
C307	2.71	2.71
C308	1.50	2.00
C309	2.00	2.00
C310	1.83	2.67
C311	2.60	2.33
C312B	2.80	2.60
C313	2.00	1.80
C314	2.56	2.67

3.2 Attainment of Course Outcomes (40)

Total Marks 40.00

3.2.1 Describe the assessment processes used to gather the data upon which the evaluation of Course Outcome is based (10)

Assessment Process for CO Attainment:

For the evaluation and assessment of CO's and PO's, rubrics are used. The rubrics considered here are given below:

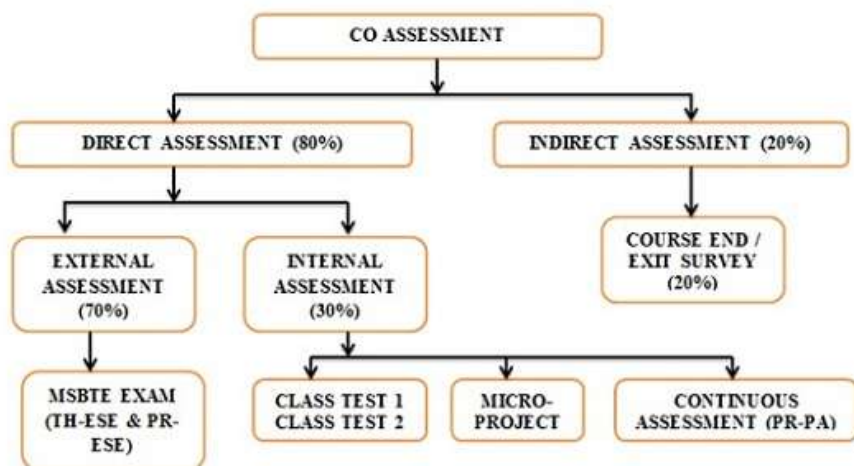
A. CO Assessment Rubrics:

Fig.5. CO Assessment Process

Course Outcome is evaluated based on the performance of students in internal assessments and in MSBTE examination of a course. Internal assessment contributes 30% and MSBTE assessment contributes 70% to the total attainment of a CO.

CO - Assessment Process / Tools:

Component	Components of Evaluation	Nature of Exam
Theory	Class First Test Exam	Short and long questions & Multiple choice questions
	Class Second Test Exam	Short and long questions & Multiple choice questions
Practical	Continuous Assessment	Planning, analysis of lab skills, finishing the experiment
	Practical examination	Synopsis, spotting and vivavoce, major & minor experiment.
	Microproject	Communication, data interpretation
Beyond syllabus	Conducting experiments	Only Specific Subject.
Overall Evaluation	External exam –semester wise	

Direct Internal Assessment Tools

MSBTE examinations:

Component	Components of Evaluation	Nature of exam
Theory	MSBTE end exams	Short questions, long questions, numerical Problems
Practical	MSBTE End Exams	Synopsis, spotting, major experiment, minor experiment, interpretation, data analysis, viva voce, communication, continuous assessment.

Indirect assessment tools

S. No.	Indirect Assessment	Method Description
1.	Course Exit Feedback: Survey Questionnaire	Collect variety of information about Course Satisfaction and Department from the all year students.
2.	Employer's Feedback Form	Collect variety of information about the graduates' skills, capabilities and opportunities.
3.	Student Feedback (About OBE)	Collect variety of information about outcome based education in teaching and learning process.
4.	Feedback Form On Facilities	Collect variety of information about facilities from the students

Assessment Parameters: The performance of a student in each semester shall be evaluated course wise with a maximum of 100 marks for theory course and 100 marks for laboratory.

B. Quality / Relevance of Assessment Process:

Assessment process: The assessment tools are direct and indirect methods for evaluating the attainment of POs.

Direct methods:

Through the internal and external assessment, the teacher can focus on the PO's. The question papers include, short answers, short question and long question type. In addition, MCQs examinations are conducted on each unit test. Assignments are given for some extension of syllabus. In case of laboratory examination, synopsis, major experiment, minor experiment, viva voce, reports, etc., are the components. While setting a question paper, each question is framed based on the POs in order to attain them to a large extent.

A few POs of minor importance may not be accommodated. It is necessary that a question has to cover 60% of 'essentials to know', 30% 'better to know' and 10% are 'nice to know'. Therefore, special attempts are made to attain these objectives.

The subjects are also categorized as professional core subjects, basic science subjects (mathematics, science, computing, and humanities) and Engineering Sciences. Accordingly, the POs have assumed adequate importance. Having set the question papers, the answer papers are being evaluated from the same perspectives. The students are given feedback and POs are highlighted. Data are gathered after scrutinizing the answer for course outcomes. The course outcomes are translated to POs. Attainment of POs is considered from the data of all students.

1. Theory course:

1. Pattern for Internal Unit Test Examinations:

For theory courses of each semester there shall be two Unit Test descriptive & objective exams. Each descriptive & objective exam consists of 60 minutes (1hr). The Unit Test exams will be taken for the assessment of internal marks. The first Unit Test examination will be conducted usually after 6 to 7 weeks of instruction of MSBTE Academic Calendar year wise or semester wise; the second Unit Test examination will be conducted at instruction of MSBTE Academic Calendar year wise or semester wise.

Total weightage of Theory Marks to the Course is 100. From 100 Marks 70 Marks are allotted to MSBTE TH Examination and 30 Marks are allotted to Theory Progressive Assessment (PA).

Under the theory PA; out of 30 Marks, 10 marks of theory PA are for microproject assessment to facilitate integration of COs and the remaining 20 marks is the average of 2 class tests taken during the semester. MSBTE Theory Examination of 70 marks will be conducted by MSBTE at the end of semester.

Theory (TW) Marks (TH-PA) (30) = (Average of Two Unit Test (1&2) + MicroProject)

2. CO wise assessment Rubrics:

Every Unit Test question is mapped to a specific CO. Thereafter, a COwise cutoff value is taken based on the highest mark secured for that CO and the number of students with their internal mark above the cut off value is considered for rating the CO attainment.

No. of students having marks > cutoff	Rating in 3 scale (I)
>=60%	3
50% to 59%	2
40% to 49%	1

3. Pattern for External End Examinations:

There shall be an external examination for every theory course and the duration of the time for this end examination is 3 hours.

Assessment Rubrics:

An overall cutoff value is taken for all CO's commonly based on the highest mark secured and the number of students with their external mark above the cutoff value is considered for rating all CO attainments.

No. of students having marks >cutoff	Rating in 3 scale (E)
>=60%	3
50% to 59%	2
40% to 49%	1

4. Overall Attainment:

The Final CO attainment is calculated by combining the internal attainment and External attainment in a ratio of 30: 70.

Final Value (V) = 30% of Internal Level (I) + 70% of External Level (E)

2. Laboratory Course:

Pattern for Lab Examinations:

For practical subjects, Progressive Assessment (P.A.) of each experiment will be done out of 25 marks on the basis of Use of appropriate tool to solve the problem, Quality of output achieved, Answer to sample questions and Submit report in time. Final term work of 25 marks is calculated based on Progressive Assessment for each experiment. (25marks of theory subject & 50marks of nontheory subject).

For theory subject,

$$\text{Practical (TW) Marks (50)} = ((\text{PR-PA (25)}) + (\text{PR-ESE (25)}))$$

For Nontheory subject,

$$\text{Practical (TW) Marks (100)} = ((\text{PR-PA (50)}) + (\text{PR-ESE (50)}))$$

A comprehensive Final Practical End Semester examination (of 25 Marks) will be conducted by MSBTE at the end of semester. Examiner for this examination will be appointed by MSBTE. The schedule of MSBTE Practical Examination will be displayed prior to examination.

COwise assessment Rubrics:

No. of students having marks >cutoff	Rating in 3 scale (E)
>=60%	3
50% to 59%	2
40% to 49%	1

MicroProject Work Evaluation:

Evaluation Scheme for Micro project:

Sr. No.	Characteristic to be Assessed	10 Marks for each characteristic	Converted Marks	Total Marks
1	Relevance to the course	Total Marks out of 60 for 6 Characteristics	Out of 6 Process & Product Assessment (for group)	(6+4) out of 10
2	Literature Survey / Information Collection			
3	Completion of Target as per proposal			
4	Analysis of Data and representation			
5	Quality of Prototype/Model			
6	Report Preparation			
7	Presentation	Total Marks out of 20 for 2 Characteristics	Out of 4 for (Individual Student)	
8	Viva			

There shall be Courseoriented MicroProject; however, the MicroProject and its report shall be evaluated along with the project work in Semester. The Course oriented MicroProject shall be submitted in a report form and presented before the Semester end. It shall be evaluated for 10 marks. There shall be internal marks for Courseoriented MicroProject.

Microproject:

- Project batches are formed as per the instruction given by HOD's or class Teacher.
- Micro Project Viva voce is conducted by the Subject Teacher.
- Based on the viva voce the marks are awarded to the students and submitted to MSBTE.
- The department will encourage students to participate in technical Expo and the project guides motivate and guide the students to publish in standard conference/journal forums.

Attainment of Program Outcomes and Program Specific Outcomes.

The following are the Assessment Tools:

Several tools are described for assessing course outcomes. The program outcomes are based on the course outcomes. Thus, the tools remain the same for assessing the program outcomes. In addition, the tools of survey based on the alumni and exit surveys are considered.

1. Program End of course surveys
2. Course End of course surveys (half yearly)
3. Student exit surveys
4. Alumni surveys yearly
5. Staff surveys – yearly
6. Higher education and placement

Direct assessment tools

Direct methods: Internal Assessment Test is conducted from two Test (Unit Test 1 & Unit Test 2) , MicroProject And continuouse assessment(PR-PA).

Sr.No.	Direct Assessment	Method Description
1.	Internal Assessment Test	The Internal Assessment marks in a theory paper shall be based on two tests generally conducted at the end of 7 and 13 weeks of each semester (20). An improvement test may be conducted for the desirous students before the end of the semester to give an opportunity to such students to improve their Internal Assessment Marks. It is a metric to continuously assess the attainment of course outcomes w.r.t course objectives. Average of the two tests marks obtained shall be the Internal Assessment Marks for the relevant subject.
2	Assignment	Assignment is a metric to mainly assess student's knowledge/skills/attitude with their designing capabilities.
3	Lab Assignments	Lab Assignment can be one of the measuring criteria to mainly assess student's practical knowledge with their designing capabilities. In case of Practical, the Internal Assessment marks shall be based on day to work in the lab (25marks of theory subject & 50marks of nontheory subject) and one practical exam (25marks of theory subject & 50marks of nontheory subject).
4	Theory Semester Examination	Semester examination (theory or practical) are the metric to assess whether all the course outcomes are attained or not framed by the course owner. Semester Examination is more focused on attainment of course outcomes and uses a descriptive exam. Practical semester examination focuses on conduction of experiments and vivavoce.
5	Practical Semester Examination	
6	MicroProject & Final Project	The Internal Assessment marks in the case of micro projects, projects and seminars in the final year shall be based on the evaluation at the end of 6th semester by a committee consisting of the Head of the concerned Department and MSBTE Appointed faculty.
9	Comprehensive viva	Vivavoce examination in project work shall be conducted batch wise.

Indirect assessment tools

Indirect methods: Survey is conducted from two levels: alumni and Program exit survey.

Sr. No.	Indirect Assessment	Method Description
1.	Alumni: Survey Questionnaire	Collect variety of information about program Satisfaction and college from the Alumni students.
2.	Program Exit Feedback: Survey Questionnaire	Collect variety of information about program Satisfaction and college from the final year students.
3.	Employer's Feedback Form	Collect variety of information about the graduates' skills, capabilities and opportunities.
4.	Student Feedback (About OBE)	Collect variety of information about outcome based education in teaching and learning process.

Assessment Methodology, tools and frequency of use for direct method

S. No	Assessment Method	Assessment frequency	Assessment Tool
1	Internal Assessment Test	At the end of 7 th and 13 th weeks of each semester.	Student's performance in internal Assessment booklets.
2	Lab Assessment Test	At the end of the semester	Student's performance in conducting experiments and journal writing.
3	Theory Semester Examination	At the end of the semester	Student's performance in MSBTE exams.
4	Practical Semester Examination	At the end of the semester	Student's performance in conducting experiments during MSBTE exams.
5	Microproject	At the end of the Each semester	Student's performance in MSBTE exams
6	Project Work Viva voce	At the end of the 6 th semester	Student's performance in MSBTE exams
7	Course Exit Survey	Semester end	Student survey

Assessment Methodology, tools and frequency of use for indirect method.

Sr. No.	Assessment Method	Assessment frequency	Assessment Tool
1	Program Exit Survey	Annually	Exit report from Diploma
2	Alumni: PEO Survey Questionnaire	Annually	Exit report after 3 years of Diploma
3	Employer's Feedback	Annually	Performance report on employees
4	Student Feedback(About OBE)	Twice in a year	Student survey

3.2.2 Record the attainment of Course Outcome of all courses with respect to set attainment levels (30)

Institute Marks

30.00

3.3 Attainment of Program Outcomes and Program Specific Outcomes (40)

Total Marks 40.00

3.3.1 Describe assessment tools and processes used for assessing the attainment of each POs and PSOs as mentioned in Annexure 1 (10)

A. List of assessment tools and process:

1. PO and PSO Assessment Tools:

The various direct and indirect assessment tools used to evaluate POs & PSOs and the frequency with which the assessment processes are carried out are listed in table.

PO and PSO Assessment Tools					
Direct (80% weightage)	CO Assessment	Theory	Internal Evolution	Unit Test 1 &2	Twice per course
				Assignments	Twice per course
			MSBTE Exam		Once per course
		Practical's	Internal Evolution	Continuous Assessment	Every lab
				Internal Lab exam	Once per course
			MSBTE Exam		Once per course
		Micro project	Internal Evaluation Reviews		One per course
			Report		Once per
Indirect (20% Weightage)	Surveys	Program Exit Survey			At the end of the Program
		Alumni Survey			Once per year

Table: Assessment tools used for evaluation of PO and PSO attainment.

2. PO and PSO Assessment Process:

PO/PSO assessment is done by giving 80% weightage to direct assessment and 20% weightage to indirect assessment. Direct assessment is based on CO attainment, where 70% weightage is given to attainment through MSBTE exam and 30% weightage is given to attainment through internal assessments. Indirect assessment is done through Program exit survey and alumni survey where Program exit survey and alumni survey is given a weightage of 50% each.

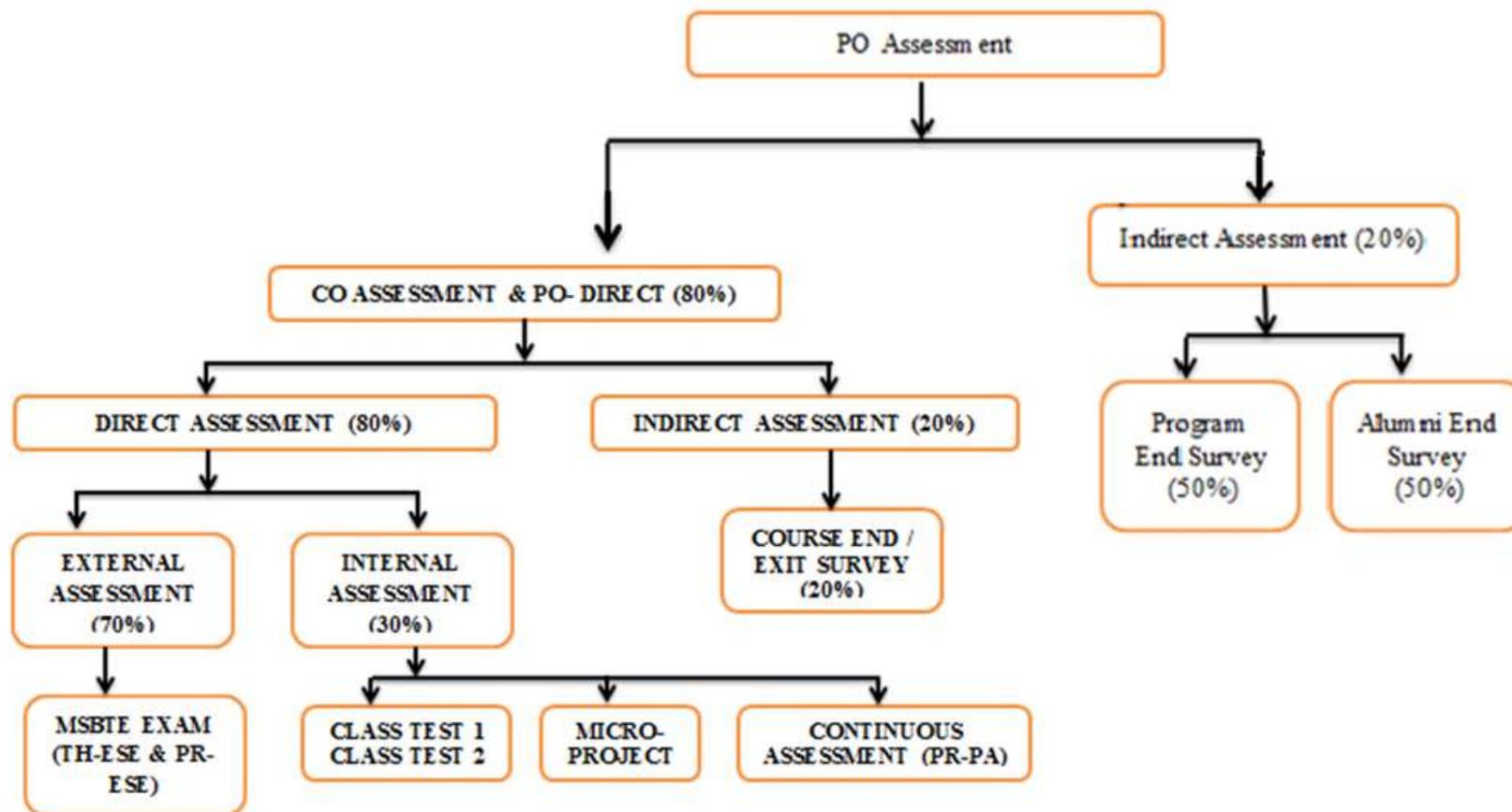


Fig.7. PO Assessment Process

B. Quality/relevance of assessment tools and processes:

i. Direct Assessment Tools and Process:

Direct assessment tools are used for the direct assessment of POs and PSOs. Initially, the attainment of each course outcome is determined using internal as well as external (MSBTE exam) assessment. The each PO attainment of corresponding to a particular course is determined from the attainment values obtained for each course outcome related to that PO and the COPO mapping values. Similarly, the values of PSO attainment are also determined.

ii. Indirect Assessment Tools and Process:

Indirect assessment is done through program exit survey, alumni survey where program exit survey and alumni survey are given a weightage of 50% each and alumni survey is given a weightage of 50%.

1. Program Exit Survey:

Identify the degree to which the facilities at helped your ward to develop the skills and abilities to be successful in his professional life with (a) High3 (b) Moderate 2 (c) Low1 (d) No – 0.

POs	Information	Grade
PO1	Basic and Discipline specific knowledge	
PO2	Problem analysis	
PO3	Design/ development of solutions	
PO4	Engineering Tools, Experimentation and Testing	
PO5	Engineering practices for society, sustainability and environment	
PO6	Project Management	
PO7	Lifelong learning	

PSOs	Information	Grade
PSO1	Computer Software and Hardware and Hardware Usage.	
PSO2	Computer Engineering Maintenance.	

PEOs	Information	Grade
PEO1	Provide socially responsible, environment friendly solution to computer engineering related broad based problems adapting professional ethics.	
PEO2	Adapt stateoftheart computer engineering broadbased technologies to work in multi disciplinary work environments.	
PEO3	Solve broadbased problems individually and as a team member communicating effectively in the world of work.	

Sr. No	Facility	Grade
1	Class rooms	
2	Laboratory infrastructure	
3	Sports and cultural facilities	
4	Research	
5	Library	
6	Medical	

7	Transport	
8	Mentoring	
9	Grievances handled	
10	Placement opportunities	

Program Exit Survey Form



॥ ज्ञानं वाचं भद्रं कर्म ॥
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 Guru Fattchand Bhavan, Shri Fattchand Marg, Chinchwadgaon, Pune -411033
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Department of Computer Engineering
Program Exit Survey Form
Academic Year 2022-2023

Enrollment No:- _____ **Program:-** _____

Name of Student- _____ **Roll no:-** _____

Instruction: Tick (✓) any one out of four options listed below each question.

Q.1 Attain ability to apply knowledge of basic mathematics, science and engineering fundamental appropriate to domain.

a) Excellent. b) Good c) Satisfactory solutions of varying d) Poor complexities.

Q.2 Apply their software development skill to design and implement commercial systems consisting of hardware and/or software.

a) Excellent b) Good c) Satisfactory d) Poor

Q.3 Have ability to design and develop solutions for varying complexities

a) Excellent b) Good c) Satisfactory d) Poor

Q.4 Attain ability to practice as competent computer professional with yearn for learning and employing technologies.

a) Excellent b) Good c) Satisfactory d) Poor

Q.5 Have ability to design a system, component or process to meet desired needs within realistic constraints such as cost environmental societal health and safety maintenance and feasibility.

a) Excellent b) Good c) Satisfactory d) Poor

Q.6 Have ability to work as team in diverse social and professional environments

a) Excellent b) Good c) Satisfactory d) Poor

Q.7 Have ability to recognize the need for life-long learning, and pursue higher education as per the needs of the current and future professional practice.

a) Excellent b) Good c) Satisfactory d) Poor

Q.8 Have ability to use technologies for operation & application of Computer S/W & H/W?

a) Excellent b) Good c) Satisfactory d) Poor

Q.9 Have ability to maintain computer Engineering related S/W & H/W?

a) Excellent b) Good c) Satisfactory d) Poor

Signature of Student _____

Relation of POs and PSOs with questionnaire:

POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
Questions	Q.1	Q.2	Q.3	Q.4	Q.5	Q.6	Q.7	Q.8	Q.9

Evaluation Process:

The questionnaire consists of 9 questions which is relevant for assessing each PO and PSO. Each question is having 4 options namely Very Good, Good, Average and Poor, which is given marks 3,2,1,0 respectively. These survey results are tabulated and the average values corresponding to each PO and PSO are determined.

PO/PSO	Question	Justification
PO1	Q1	Both are related to basic knowledge of engineering and Basic mathematics & Science.
PO2	Q2	Development of H/W & S/W engineering Skill.
PO3	Q3	It asks about Design & development solution of complex problems.
PO4	Q4	Investigation of computer professional learning.
PO5	Q5	Use of technical & social Environment & Maintenance.
PO6	Q6	It deals with engineering solutions to global, national and societal contexts.
PO7	Q7	Both are talk about sustainable development
PSO1	Q8	Use of technical resources and advanced technology forms.
PSO2	Q9	Use of Maintenance of H/W & S/W.

2. Alumni Survey:


Evaluation of Program Effectiveness: identify the degree to which your program helped you to develop the skills and abilities to be successful in your professional life with (a). High 3(b) Moderate 2 (c) Low 1 (d) Poor 0.

S. No	Program Specification	Grade
1	Application of Engineering fundamentals	
2	Problem solving capability	
3	Designing capability for specific Engineering needs	
4	Usage of modern tools in engineering.	

5	Engineering practice with social responsibility & Understanding of development with sensitivity to environment	
6	Managerial skills and finance handling capability & Team work & leadership skills	
7	Ability to engage in independent and Lifelong learning.	

S. No	Suggestions	Yes/No
1	Can you suggest any technical content that would augment existing curriculum?	
2	Suggest how RMDIOT can help, improve the placement opportunities for its students.	
3	Specify tools / Novel Technologies needed to meet the current Job requirements.	
4	Have you received any award / recognition in your professional career?	
5	Have you published any research / technical paper in your profession?	
6	Will you recommend your relative/friends to enroll in RMDIOT?	
7	Would you like to associate with the Institute / Department in any of the following; (a) Project (b) Training Students (c) Expert Lectures / Workshops (d) Consultancy (e) Industrial Visits (f) Placement	

Alumini Survey Form

[श्री जैन विद्या मंडल] Shri Jain Vidya Prasarak Mandal's RASIKLAL M. DHARIWAL INSTITUTE OF TECHNOLOGY Guru Fatechand Bhawan, Shri Fatechand Marg, Chandkhodaganj, Pune-411031. Fax: 020-27354631, Tel: 020-84106323, 020-27353116, Email: rndi@rediffmail.com			
ALUMNI: FEEDBACK /SURVEY QUESTIONNAIRE			
Diploma:	Year of Passing:	Recent Photo	
Name :	Email address:		
Address:			
Contact No:			
Date of Birth:			
City:	State:	Pin Code:	
EMPLOYMENT HISTORY:			
Higher Education, if any: Y/N			
Yes give details:			
Name of College/University:			
Program:			
Year of completion:			
Employed: Y/N			
Type of Industry:			
Name of firm(s):			
Employment Dates:			
Position(s) Held:			
Self Employed: Y/N			
Nature of entrepreneurship:			
Major Accomplishments (brief description):			
Dear Alumni,			
Following are the guidelines for your valuable feedback on Program Outcomes (PO) and Program Specific Outcomes (PSO).			
Program Outcomes:			
The Program Outcomes are the skills and knowledge which the students acquire at the program of graduation. The outcomes essentially indicate performance of student from course-wise knowledge required during the program.			
Program Specific Outcomes (PSO):			
These are specific skills and knowledge which the students Acquire at the of graduation. The outcomes essentially indicate performance of student from program specific knowledge acquired during the program.			
Each of the Program Outcomes (PO) (1-7) and PSO (8-10) given below, describes acquired skills and knowledge of core engineering field on the scale of 1-3. Kindly rate POS and PSOS and comment if any.			

				3: Substantial (High)	2: Moderate (Medium)	1: Slight (Low)
PO	Program Outcomes	Points on scale of 1-3	Comments (if any)			
1	Apply knowledge of basic mathematics, science and engineering fundamentals and engineering specialization to solve the engineering problems.					
2	Identify and analyse well-defined engineering problems using codified standard methods.					
3	Design solutions for well-defined technical problems and assist with the design of systems components or processes to meet specified needs.					
4	Apply modern engineering tools and appropriate technique to conduct standard tests and measurements.					
5	Apply appropriate technology in context of society, sustainability, environment and ethical practices.					
6	Use engineering management principles individually, as a team member or a leader to manage projects and effectively communicate about well-defined engineering activities.					
7	Ability to analyse individual needs and engage in updating in the context of technological changes.					
Could you identify any topic(s) /course(s) (subjects) during your tenure which would have more beneficial to your present position and/or to be included in the academic schedule?						
Program Specific Outcomes (PSO):-						
To what extent the following Program Specific Outcomes (PSO) were fulfilled? For each of the Specific Outcomes (PSO) given below scale on 1-3.						
Your assessment-	Substantial (High) 3	Moderate (Medium) 2	Slight (Low) 1			
Program Specific Outcomes (PSOs)						
1.1 Use state of the art technologies for operations and application of computer software and hardware.						
1.2 Maintenance computer Engineering related software and hardware systems.						
DATE:						
PLACE:						
SIGNATURE OF ALUMNI						

Relation of POs and PSOs with questionnaire:

POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
Questions	Q.1	Q.2	Q.3	Q.4	Q.5	Q.6	Q.7	1.1	1.2

Evaluation Process

The questionnaire consists of 9 questions which is relevant for assessing each PO and PSO. Each question is having 1 to 3 point on scale options namely Good, Average and Poor, which is given marks 3,2,1 respectively. These marks are tabulated and the average values corresponding to each PO and PSO are determined.

POs	Questions	Justification
PO1	Q1	Related as both are related to basic sciences
PO2	Q2	Related since both are related to identification and analysis processes
PO3	Q3	Related as both points are related to existing issues.
PO4	Q4	Related since both include use of recent techniques and tools
PO5	Q5	Related as both include professional ethics.
PO6	Q6	Related as both include team work
PO7	Q7	Related as both include lifelong learning.
PSO1	1.1	Related as both include use of techniques and tools
PSO2	1.2	Related as it includes more than use of techniques and tools & Maintenance.

Indirect Attainment:

POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
Program Exit Survey	Attainment values of Program Exit Survey								
Alumni Survey	Attainment values of Alumni Survey								
Overall Attainment	IA ₁	IA ₂	IA ₃	IA ₄	IA ₅	IA ₆	IA ₇	IA ₈	IA ₉

Indirect Attainment IA= 50% attainment of Program Exit survey + 50% attainment of Alumni survey.

Overall PO and PSO Attainment

Finally, overall PO attainment values are computed by adding direct and indirect PO attainment values in the proportion of 80:20 respectively i.e., 80% weightage for direct assessment and 20% for indirect assessment.

Overall Attainment of POs,

$$OA = 80\% \text{ of DA} + 20\% \text{ of IA}$$

Where, DA Direct Attainment of each PO,

IA Indirect Attainment of each PO,

OA Overall Attainment.

POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
Direct Attainment	DA ₁	DA ₂	DA ₃	DA ₄	DA ₅	DA ₆	DA ₇	DA ₈	DA ₉
Indirect Attainment	IA ₁	IA ₂	IA ₃	IA ₄	IA ₅	IA ₆	IA ₇	IA ₈	IA ₉
Overall Attainment	OA ₁	OA ₂	OA ₃	OA ₄	OA ₅	OA ₆	OA ₇	OA ₈	OA ₉

3.3.2 Provide results of evaluation of each PO & PSO (30)

Institute Marks

30.00

PO Attainment

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7
C101	2.40	2.40	0.00	0.00	2.40	2.40	2.40
C102	1.00	1.00	1.00	0.75	1.00	1.00	1.00
C103	1.60	2.00	2.00	2.00	1.67	2.67	2.00
C104	3.00	3.00	3.00	3.00	3.00	0.00	3.00
C105	3.00	3.00	3.00	3.00	0.00	3.00	3.00
C106	3.00	3.00	3.00	3.00	3.00	0.00	3.00
C107	3.00	3.00	0.00	0.00	3.00	3.00	3.00
C108	3.00	3.00	3.00	3.00	3.00	3.00	3.00
C109	3.00	3.00	3.00	3.00	3.00	3.00	3.00
C110	1.82	1.67	1.36	1.67	1.87	1.93	1.92
C111	1.92	2.00	2.00	2.33	1.80	0.00	1.80
C112	2.56	2.40	2.33	2.50	2.50	2.56	2.60
C113	2.16	2.13	2.17	2.42	2.15	1.28	2.20
C201	2.60	2.50	2.43	2.56	3.00	2.60	2.43
C202	2.43	2.33	2.25	2.25	0.00	2.38	2.25
C203	1.33	1.25	1.30	1.45	1.57	1.25	1.25
C204	0.00	0.20	0.20	0.20	0.50	0.13	0.20
C205	2.29	2.57	2.38	2.17	2.50	2.33	2.40
C206	2.29	2.27	2.17	2.17	0.00	2.30	2.30
C207	2.00	2.00	2.13	1.57	1.75	2.33	2.00
C208	2.00	2.00	1.92	1.92	2.43	1.86	2.00
C209	1.20	1.29	1.38	1.13	1.29	1.29	1.57
C210	3.00	3.00	3.00	3.00	3.00	3.00	3.00
C301	2.86	2.80	2.80	2.80	2.86	3.00	2.86

C302	0.50	0.35	0.38	0.40	0.00	0.00	0.60
C303	2.83	2.90	2.89	2.88	3.00	2.89	2.89
C304	1.60	1.38	1.86	1.67	2.00	2.67	1.60
C305C	2.83	2.62	2.80	2.70	2.60	2.67	2.60
C306	3.00	3.00	3.00	3.00	3.00	3.00	3.00
C307	3.00	3.00	3.00	3.00	3.00	3.00	3.00
C308	2.78	3.00	3.00	0.00	2.75	2.80	2.80
C309	2.57	2.70	2.70	2.70	0.00	2.67	2.50
C310	0.27	0.00	0.00	0.27	0.00	0.33	0.33
C311	2.85	2.69	2.75	2.67	2.67	2.82	2.73
C312B	2.25	2.11	1.18	1.71	1.58	1.83	2.11
C313	3.00	3.00	3.00	3.00	3.00	3.00	3.00
C314	3.00	3.00	3.00	3.00	3.00	3.00	3.00

PO Attainment Level

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7
Direct Attainment	2.27	2.26	2.09	2.02	2.00	2.08	2.28
InDirect Attainment	1.04	0.96	1.01	0.99	0.64	0.92	0.92
PO Attainment	2.02	2.00	1.87	1.81	1.73	1.85	2.01

PSO Attainment

Course	PSO1	PSO2
C101	2.40	0.00
C102	0.00	0.00
C103	0.00	0.00

C104	3.00	3.00
C105	3.00	0.00
C106	3.00	3.00
C107	3.00	0.00
C108	3.00	3.00
C109	3.00	3.00
C110	1.80	0.00
C111	0.00	0.00
C112	2.50	0.00
C113	2.57	2.63
C201	2.60	2.60
C202	2.40	2.40
C203	1.24	1.31
C204	0.20	0.20
C205	2.25	3.00
C206	2.17	2.17
C207	1.57	2.33
C208	2.33	2.11
C209	1.20	1.20
C210	3.00	3.00
C301	0.00	0.00
C302	0.60	0.43
C303	2.83	2.83
C304	1.60	1.78
C305C	2.60	2.60
C306	3.00	3.00
C307	3.00	3.00

C308	2.67	3.00
C309	2.50	2.50
C310	0.18	0.25
C311	3.00	2.71
C312B	1.79	1.69
C313	3.00	3.00
C314	3.00	3.00

PSO Attainment Level

Course	PSO1	PSO2
Direct Attainment	2.05	1.75
InDirect Attainment	1.02	1.00
PSO Attainment	1.84	1.60

4 STUDENTS' PERFORMANCE (200)

Total Marks 132.09

Intake Information:**Table 4.1**

Item	2022-23 (CAY)	2021-22 (CAYm1)	2020-21 (CAYm2)	2019-20 (CAYm3)	2018-19 (CAYm4)	2017-18 (CAYm5)
Sanctioned intake strength of the program((N)	90	60	60	60	60	60
Total number of students, admitted through state level counseling (N1)	90	57	53	60	39	49
Number of students, admitted through Institute level quota (N2)	0	0	0	0	0	0
Number of students, admitted through Lateral Entry (N3)	0	9	6	4	32	7
Total number of students admitted in the programme(N1 + N2 + N3)	90	66	59	64	71	56

Table 4.2

Year of entry	Total No of students admitted in the program (N1 + N2 + N3)	Number of students who have successfully passed without backlogs in any year of study		
		I year	II year	III year
2022-23	90	0	0	0
2021-22	66	18	0	0
2020-21	59	42	14	0
2019-20 (LYG)	64	42	43	31
2018-19 (LYGm1)	71	9	12	10
2017-18 (LYGm2)	56	7	8	8

Table 4.3

Year of entry	Total No of students admitted in the program(N1 + N2 + N3)	Number of students who have successfully graduated in stipulated period of study) [Total of with Backlog + without Backlog]		
		I year	II year	III year
2022-23	90	0	0	0
2021-22	66	57	0	0
2020-21	59	53	34	0
2019-20 (LYG)	64	60	62	33
2018-19 (LYGm1)	71	30	57	54
2017-18 (LYGm2)	56	26	22	22

4.1 Enrolment Ratio (20)

Total Marks 20.00

Institute Marks

20.00

	N (From Table 4.1)	N1 + N2 (From Table 4.1)	Enrollment Ratio [(N1 + N2 / N)*100]
2022-23	90	90	100.00
2021-22	60	57	95.00
2020-21	60	53	88.33

Average [(ER1 + ER2 + ER3) / 3] : 94.44

Assessment : 20.00

4.2 Success Rate in the stipulated period of the program (60)

Total Marks 21.13

4.2.1 Success rate without backlogs in any year of study (40)

Institute Marks

10.00

Item	Last Year Graduate (2019-20)	Last Year Graduate Minus 1 Batch (2018-19)	Last Year Graduate Minus 2 Batch (2017-18)
Total Number of students (X) (admitted through state level counseling + admitted through Institute on Level quota + admitted through Lateral entry) (N1 + N2 + N3)	64.00	71.00	56.00
Number of students who have graduated without backlogs in the stipulated period (Y)	31.00	10.00	8.00
Success Index [SI = Y / X]	0.48	0.14	0.14

Average SI [(SI1 + SI2 + SI3) / 3] : 0.25

Assessment [40 * Average SI] : 10.00

4.2.2 Success rate in stipulated period (20)

Institute Marks

11.13

Item	Latest Year of Graduation, LYG (2019-20)	Latest Year of Graduation minus 1, LYGm1 (2018-19)	Latest Year of Graduation minus 2 LYGm2 (2017-18)
Total Number of students (X) (admitted through state level counseling + admitted through Institute on Level quota + admitted through Lateral entry) (N1 + N2 + N3)	64.00	71.00	56.00
Number of students who have passed in the stipulated period (Y)	33.00	54.00	22.00
Success Index [SI = Y / X]	0.52	0.76	0.39

Average SI [(SI1 + SI2 + SI3) / 3]: 0.56

Assessment [20 * Average SI] : 11.13

4.3 Academic Performance in First Year (25)

Total Marks 17.33

Institute Marks
17.33

Academic Performance	2021-22 (CAYm1)	2020-21 (CAYm2)	2019-20 (LYG)
Mean of CGPA or mean percentage of all successful students(X)	7.00	6.93	6.87
Total number of successful students(Y)	57.00	53.00	60.00
Total number of students appeared in the examination(Z)	57.00	53.00	60.00
API [X*(Y/Z)]:	7.00	6.93	6.87

Average API [(AP1 + AP2 + AP3)/3] : 6.93

Assessment [2.5 * AverageAPI] : 17.33

4.4 Academic Performance in Second Year (20)

Total Marks 11.55

Academic Performance	2020-21(CAYm2)	2019-20(LYG)	2018-19(LYGm1)
Mean of CGPA or mean percentage of all successful students(X)	7.25	7.02	6.90
Total number of successful students (Y)	34.00	62.00	57.00
Total number of students appeared in the examination (Z)	59.00	64.00	62.00
API [$X * (Y/Z)$]	4.18	6.80	6.34

Average API [$(AP1 + AP2 + AP3)/3$] : 5.77

Assessment [$2.0 * AverageAPI$] : 11.55

4.5 Academic Performance in Final Year (15)

Total Marks 9.68

Institute Marks

9.68

Academic Performance	2019-20 (LYG)	2018-19 (LYGm1)	2017-18(LYGm2)
Mean of CGPA or mean percentage of all successful students(X)	7.23	7.60	8.30
Total number of successful students(Y)	33.00	54.00	22.00
Total number of students appeared in the examination(Z)	62.00	57.00	22.00
API [$X*(Y/Z)$]:	3.85	7.20	8.30

Average API [$(AP1 + AP2 + AP3)/3$] : 6.45

Assessment [$1.5 * AverageAPI$] : 9.68

4.6 Placement and Higher Studies (40)

Total Marks 32.40

Item	2019-20 (Last Year Graduate,LYG)	2018-19 (Last Year Graduate Minus 1 Batch,LYGm1)	2017-18 (Last Year Graduate Minus 2 Batch,LYGm2)
Total No of Final Year Students(N)	62.00	57.00	22.00
No of students placed in the companies or government sector(X)	8.00	4.00	3.00
No of students admitted to higher studies (Y)	18.00	50.00	19.00
No. of students turned entrepreneur in the respective field of engineering/technology (Z)	0.00	0.00	0.00
Placement Index $(((1.25 * X) + Y + Z) / N)$:	0.45	0.96	1.03

Average Placement $[(P1 + P2 + P3)/3]$: 0.81

Assessment $[40 * \text{Average Placement}]$: 32.40

Provide the placement data in the below mentioned format with the name of the program and the assessment year (separately for CAYm1, CAYm2 and CAYm3):

Program Name : Computer Engg.

Assessment Year : 2021-22 (CAYm1)

S.No	Student Name	Enrollment No	Employee Name	Appointment No
1	PATIL OMKAR RAMESH	1903630123	NETWARE INFO TECH	2022/227
2	POKHARNAANAND SAN	1903630125	Shree ganesh enterpris	SG148
3	KUMBHAR CHAITANYA S	1903630126	NETWARE INFO TECH	2022/229
4	SHAIKH MUSKAN MAHAJ	1903630148	NETWARE INFO TECH	2022/218
5	TAYADE ANUSHREE GC	1903630156	Shree ganesh enterpris	SG158
6	MUJAWAR MARIYA RAJK	1903630165	NETWARE INFO TECH	2022/237
7	GOUD ARADHANA VINO	1903630180	BSH housholdappliance:	3081813
8	PAWAR NIRANJAN KISHI	2003630085	NETWARE INFO TECH	2022/244

Assessment Year : 2020-21 (CAYm2)

S.No	Student Name	Enrollment No	Employee Name	Appointment No
1	TAMBOLI SOHAIL JAVEI	1803630152	netware info tech	2021/0151
2	FAVADE ABHAYCHARAN	1803630172	netware info tech	2021/0157
3	KHAN AMIR SHAHID	1903630071	Shree ganesh enterpris	SG134
4	DUBAL SAGAR DIPAK	1903630120	netware info tech	2021/0170

Assessment Year : 2019-20 (CAYm3)

S.No	Student Name	Enrollment No	Employee Name	Appointment No
1	GAIKWAD SONU VINAYA	1703630136	Tata Technology Limited	95558
2	ANSARI TANVEER SHAF	1703630158	infobahn technical soluti	PR917717
3	KUSHWAHA RICHA SAN	1703630160	Shree ganesh enterpris	SG113

4.7 Professional Activities (20)

Total Marks 20.00

4.7.1 Professional societies/ student chapters and organizing technical events (10)

Institute Marks

10.00

A. Availability of Professional Societies/Chapters & Relevant activities (5)

Institute Marks

5.00

Professional activities offer students the opportunity to build leadership skills, get latest knowledge from experts and attend seminars. ComputerDepartment has participated in Professional activities under CESA.

Table No. 4.7.1.1

Professional Organization	No. of Students
CESA	SY and TY Students

B. Number, quality of engineering events (5)

Institute Marks

5.00

Academic Year 2022-23**Table No. 4.7.1.2**

Sr. No	Date	Event	Details
01	21/02/2023	Paper Presentation	State Level Technical Paper Presentation to improve presentation skills of students.
02	21/02/2023	Project Competition	State level Project competition is organized for final year students of computer engineering department
03	21/02/2023	Poster Presentation	State Level Technical Poster Presentation to improve imagination and presentation skills of students.

Academic Year 2021-22**Table No. 4.7.1.3**

Sr. No	Date	Event	Details
01	14/03/2022	Paper Presentation	State Level Technical Paper Presentation to improve presentation skills of students.
02	15/03/2022	Quiz Competition	State level Quiz competition is organized for computer students.
03	14/03/2022	Poster Presentation	State Level Technical Poster Presentation to improve imagination and presentation skills of students.

Academic Year 2019-20**Table No. 4.7.1.4**

Sr. No	Date	Event	Details
01	10/02/2020	Paper Presentation	State Level Technical Paper Presentation to improve presentation skills of students.
02	10/02/2020	Mini Project Competition	State level Mini Project competition is organized for computer Engineering students.

Academic Year 2018-19**Table No. 4.7.1.5**

Sr. No	Date	Event	Details
01	10/01/2019	Paper Presentation	State Level Technical Paper Presentation to improve presentation skills of students.

Academic Year 2017-18**Table No. 4.7.1.6**

Sr. No	Date	Event	Details
01	10/01/2018	Paper Presentation	State Level Technical Paper Presentation to improve presentation skills of students.

4.7.2 Publication of technical magazines, newsletters, etc. (5)

Institute Marks

A. Quality & Relevance of the contents and Print Material (3)

Institute Marks

3.00

“TECH NEST” is yearly published college magazine which consists of 3 sections English, Hindi and Marathi. “TECH YUVA” is Half yearly published News letter which covers all the technical activities as well as social activities of students as well faculty members

Table No. 4.7.2.1

Sr. No.	Name of Magazine/News Letter	Year of Publication	Name of Editor
01	TECH NEST	2017	Mrs. A. A. Deshpande
02	TECH NEST	2018	Mrs. A. A. Deshpande
03	TECH NEST	2019	Mrs. S. V. Waghmare
04	TECH YUVA	Jan 2023	Mr. Khadke S. B.
05	TECH YUVA	June 2023	Mr. Khadke S. B.

B. Participation of Students from the program (2)

Institute Marks

2.00

The students of Computer Engineering are actively participated in activities. Most of students given technical articles as well as general articles to the college magazine for publishing.

Table No. 4.7.2.2

Sr.no	Name of Student	Article Name	Year
1	shwetapatil	The hand that rocks the cradle rules the world	2016-17
2	AkankhaPhalke	Special Report & Interview	2016-17
3	Maheranadaf	Marathi Article	2016-17
4	GautamiBhujale	Poetry	2016-17
5	udayvethekar	Poetry	2016-17
6	siddhantsancheti	Poetry	2016-17
7	Mosuami shah	technical Article	2016-17
8	Omkarpatil	Marathi Article	2017-18
9	Omkarpatil&RushaliChoudhari	Interview- Anna Hazare	2017-18
10	ShwetaPawar	Marathi Article	2017-18
11	DhanashriMundhe	Marathi Article	2017-18
12	ShahanaBaig	Technical Article	2018-19
13	RichaKushwaha	Secrets of Success	2018-19
14	Anushka Joshi	Marathi Article	2018-19
15	AnushkaKalandikar	Marathi Article	2018-19
16	SomnathBhosale	Marathi Article	2018-19
17	YogeshwariPawar	Marathi Article	2018-19
18	Ansari Tanveer	Poetry	2018-19
19	Simranvishwakarma	Poetry	2018-19

4.7.3 Participation in inter-institute / state/national events by students of the program of study (5)

Institute Marks

5.00

Academic Year 2022-23

Table No. 4.7.3.1

Sr. No.	Type of Activity & Details (Paper Presentation / Project / Quiz etc.)	Date	Name of Participating Student/s	Organizing Body & Organizing Institute	Awards (Winner / Participation)	Level (State / National etc.)
1	Poster Presentation	5/12/2022	Sapnaayolkar Aryabhadgaonkar	Y.B.PolytechnicAkurdi	2 nd Winner	State
2	Paper Presentation	21/02/2023	MansiShinde MuskanShaikh	RMDIOT	Participated	State
3	Paper Presentation	21/02/2023	DikshaJangam DivyaSurvase	RMDIOT	Participated	State
4	Paper Presentation	21/02/2023	RashmiKotambe MansiAmankar	RMDIOT	Participated	State
5	Paper Presentation	21/02/2023	SaumyaSoni NeerajSoni	RMDIOT	Participated	State
6	Paper Presentation	21/02/2023	ReeyaPicha MansiMagar	RMDIOT	Participated	State
7	Paper Presentation	21/02/2023	Jasmine Inamdar Prerna Mali	RMDIOT	Participated	State
8	Paper Presentation	21/02/2023	ChaitaynaJagtap UtkarshKamble	RMDIOT	Participated	State
9	Paper Presentation	21/02/2023	AkshtaShinde SarikaShinde	RMDIOT	Participated	State
10	Paper Presentation	21/02/2023	DarshnaPatil Riyajangam	RMDIOT	Winner	State
11	Paper Presentation	21/02/2023	Om Sonawane RushikeshBharate	RMDIOT	Participated	State
12	Paper Presentation	21/02/2023	Dinesh Dhotre VitthalShinde	RMDIOT	Participated	State
13	Paper Presentation	21/02/2023	AdarshKumbhar Sameer Lalloti	RMDIOT	Participated	State

				Print		
14	Paper Presentation		Om Parihar	RMDIOT	Participated	State
		21/02/2023	GaytriAhire	RMDIOT	Participated	State
15	Paper Presentation		Om Ghewadw	RMDIOT	Runner-up	State
		21/02/2023	ShreyashKadam	RMDIOT		State
16	Paper Presentation		JagdishSonawane	RMDIOT	Participated	State
		21/02/2023	M adhusudhanGhodge	RMDIOT	Participated	State
16	Paper Presentation		RutujaThabe	RMDIOT	Participated	State
		21/02/2023	DhammoriPilewan	RMDIOT	Participated	State
17	Paper Presentation		VaibhavBaviskar	RMDIOT	Participated	State
		21/02/2023	DevavratSurve	RMDIOT	Participated	State
18	Mini Project		YadavVirajVjaukumar	RMDIOT	Participated	State
		21/02/2023	PandeyGourav Sunil	RMDIOT	Participated	State
			ChaudhariTanmay	RMDIOT	Participated	State
19	Mini Project	21/02/2023	ShahaneGouriAnkush	RMDIOT	Participated	State
20	Mini Project		ShaikhSaniyaRasul	RMDIOT	Participated	State
		21/02/2023	ArifaParveen	RMDIOT	Participated	State
21	Mini Project		Dnyaneshwari M. Kulkarni	RMDIOT	Participated	State
		21/02/2023	BedreShravniJanardhan	RMDIOT	Participated	State
22	Mini Project		KumbharRoshniShrikant	RMDIOT	Winner	State
		21/02/2023	NarkhedeShruti Sunil	RMDIOT		State
23	Mini Project		WaghSnehalVijaykumar	RMDIOT	Participated	State
		21/02/2023	JadhavKalyaniRamsh	RMDIOT	Participated	State
24	Mini Project	21/02/2023	Ukirde Nikita Hanmant	RMDIOT	Participated	State
25	Mini Project		PatgarDeeraj	RMDIOT	Participated	State
		21/02/2023	Chandrashekhar	RMDIOT	Participated	State
26	Mini Project	21/02/2023	GurmeSwarajVinod	RMDIOT	Participated	State
27	Mini Project		Raj Rahul Shingavi	RMDIOT	Participated	State
		21/02/2023	ChoudhariSumanSantosh	RMDIOT	Participated	State
			SawargaveSumitSangmeshwar	RMDIOT	Participated	State
28	Mini Project	21/02/2023	Dixit Shweta Mahesh	RMDIOT	Participated	State

				Print		
29	Mini Project		OmkarPalse	RMDIOT	Participated	State
		21/02/2023	Vishnu Pillai	RMDIOT	Participated	State
30	Mini Project		Tejas Varma	RMDIOT	Participated	State
		21/02/2023	ShreenathJamdare	RMDIOT	Participated	State
31	Mini Project		MayawatiBhandare	RMDIOT	Participated	State
		21/02/2023	Anjali Patne	RMDIOT	Participated	State
32	Mini Project		RohanRajendraPachpute	RMDIOT	Participated	State
			NarendraDajiMadane	RMDIOT	Participated	State
		21/02/2023	SohamSandipBhojane	RMDIOT	Participated	State
			AkashVijaykumarHadgalle	RMDIOT	Participated	State
33	Mini Project	21/02/2023	BHagare Pratik Dnyaneshwar	RMDIOT	Participated	State
34	Mini Project		HrushikeshBhanbare	RMDIOT	Participated	State
		21/02/2023	DarshanBhagat	RMDIOT	Participated	State
			Pratik Burde	RMDIOT	Participated	State
35	Mini Project		ArpanJadhav	RMDIOT		State
			GajananRaut	RMDIOT		State
		21/02/2023	Ganesh Idhate	RMDIOT	Runner-up	State
			AkshadKoli	RMDIOT		State
36	Mini Project		AtharvLokhande	RMDIOT	Participated	State
		21/02/2023	TejasMurkute	RMDIOT	Participated	State
37	Mini Project		AfraazPathan	RMDIOT	Participated	State
			AtharvPalange	RMDIOT	Participated	State
		21/02/2023	Sami Patel	RMDIOT	Participated	State
			Moses Pardeshi	RMDIOT	Participated	State
38	Mini Project		Jagdish D. Sonigara	RMDIOT	Participated	State
		21/02/2023	Madhusudan R. Ghadge	RMDIOT	Participated	State
39	Poster Presentation		KambleAmruta Sanjay	RMDIOT	Participated	State
		21/02/2023	Salve SnehalVinod	RMDIOT	Participated	State

				Print		
40	Poster Presentation	21/02/2023	Nalavade Vijay Madhukar	RMDIOT	Winner	State
			Om MadanMhetre	RMDIOT		State
41	Poster Presentation	21/02/2023	KherdeAtharva Anil	RMDIOT	Participated	State
			Bandovath Shiva	RMDIOT	Participated	State
42	Poster Presentation	21/02/2023	BhegadeIshwariBalasaheb	RMDIOT	Participated	State
			Palande Maithili Deepak	RMDIOT	Participated	State
43	Poster Presentation	21/02/2023	VyavaharePrathamesh	RMDIOT	Participated	State
			ShindeAtharvaUmesh	RMDIOT	Participated	State
44	Poster Presentation	21/02/2023	Mohite Jay Tukaram	RMDIOT	Participated	State
			KadaleTejas Sunil	RMDIOT	Participated	State
45	Poster Presentation	21/02/2023	KhandareVaibhav Hanuman	RMDIOT	Participated	State
			WaghmareAmitApparao	RMDIOT	Participated	State
46	Poster Presentation	21/02/2023	MokashiSiddheshRohidas	RMDIOT	Participated	State
			ChopadeYashwantDilip	RMDIOT	Participated	State
47	Poster Presentation	21/02/2023	kumbharTejasSandeep	RMDIOT	Participated	State
			PanchalVedantShriram	RMDIOT	Participated	State
48	Poster Presentation	21/02/2023	SankpalYashSantosh	RMDIOT	Participated	State
			Shaikh Ali Ashpak	RMDIOT	Participated	State
49	Poster Presentation	21/02/2023	DholareSayoniNagesh	RMDIOT	Participated	State
			PawarArjunAbaso	RMDIOT	Participated	State
50	Poster Presentation	21/02/2023	LabdeAadityaBhaskar	RMDIOT	Participated	State
			CharthalkshitijRameshwar	RMDIOT	Participated	State
51	Poster Presentation	21/02/2023	More SwayamPrakash	RMDIOT	Participated	State
			HagaldivateMujahidRajebhai	RMDIOT	Participated	State
52	Poster Presentation	21/02/2023	BalsarafShardulShridhar	RMDIOT	Participated	State
			JagtaapSwarajSachi	RMDIOT	Participated	State
53	Poster Presentation	21/02/2023	Pujari Ganesh Sabanna	RMDIOT	Participated	State
			MadaneRushikesh Mohan	RMDIOT	Participated	State

				Print		
54	Poster Presentation	21/02/2023	Kale ShreyashBhausahab Pimple Manas Shard	RMDIOT	Participated	State
55	Poster Presentation	21/02/2023	DolareSuhaniNagesh RandhavePornima Sanjay	RMDIOT	Participated	State
56	Poster Presentation	21/02/2023	GhanghavRohit Rahul AlureSatishIranna	RMDIOT	Participated	State
57	Poster Presentation	21/02/2023	Shaikh Sameer Mustafa MekeriAjaykumaarBalu	RMDIOT	Participated	State
58	Poster Presentation	21/02/2023	Sonar Ganesh Suresh Mekeri Vijay Balu	RMDIOT	Participated	State
59	Poster Presentation	21/02/2023	DeshmukhPranav Ashok Kamble Sunil Chandrakant	RMDIOT	Participated	State
60	Poster Presentation	21/02/2023	AtifHusenShaikh AdvaitGokulKaranjkar	RMDIOT	Participated	State
61	Poster Presentation	21/02/2023	Tanvi Ganesh More AkanshaJeevan Toke	RMDIOT	Participated	State
63	Poster Presentation	21/02/2023	21/02/2023 VaishnaviHarishchandraBalsare Pranjay UmeshKatariya VaishnaviSharadShinde	RMDIOT	Participated	State
64	Poster Presentation	21/02/2023	Siddhi SandipBhoite Arya Rajesh Bhadgaonkar	RMDIOT	1-Runner-up	State
65	Poster Presentation	21/02/2023	RutujaMahale DipshikaRaghunathChitte	RMDIOT	Participated	State
66	Poster Presentation	21/02/2023	21/02/2023 ShantanuDnyaneshwarShinde Shahid Sharif Patvekar	RMDIOT	2-Runner-up	State
67	Poster Presentation	21/02/2023	SanketKhanduGayakhe AtharvGaurishankarJamkhandi	RMDIOT	Participated	State
68	Poster Presentation	21/02/2023	AnushreeArjunGhuge MansiBibhishanAher	RMDIOT	Participated	State

				Print		
69	Poster Presentation	21/02/2023	ShreyaNitin Jain	RMDIOT	Participated	State
			ShrutiNitin Jain	RMDIOT	Participated	State
70	Poster Presentation	21/02/2023	ShrutiPopatlalPitale	RMDIOT	Participated	State
			Shale Johnson Arsule	RMDIOT	Participated	State
71	Poster Presentation	21/02/2023	Riya Rahul Lokhande	RMDIOT	Participated	State
			ArnikaRavindraNagarkar	RMDIOT	Participated	State
72	Poster Presentation	21/02/2023	TanushPatil	RMDIOT	Participated	State
			HimanshuDhandre	RMDIOT	Participated	State
73	Poster Presentation	21/02/2023	PaurashSuhaskoli	RMDIOT	Participated	State
			Sanyuj Sanjay Kotangle	RMDIOT	Participated	State
74	Poster Presentation	21/02/2023	ShriramBalaji Mali	RMDIOT	Participated	State
			ArshinTamboli	RMDIOT	Participated	State
75	Poster Presentation	21/02/2023	AnushkaPrashKore	RMDIOT	Participated	State
			AnushkaYogeshBondre	RMDIOT	Participated	State
76	Poster Presentation	21/02/2023	ZunairaHussainKapatral	RMDIOT	Participated	State
			SuhanArifShaikh	RMDIOT	Participated	State
77	Poster Presentation	21/02/2023	Priti Shankar Kore	RMDIOT	Participated	State
78	Poster Presentation	21/02/2023	KalyaniBagale	RMDIOT	Participated	State
			RiyaGhavri	RMDIOT	Participated	State
79	Poster Presentation	21/02/2023	RupaliMahopure	RMDIOT	Participated	State
80	Poster Presentation	21/02/2023	TejasLaxmanJagtap	RMDIOT	Participated	State
			ChetanMahadevSakhare	RMDIOT	Participated	State

Academic Year 2021-22

Table No. 4.7.3.2

Sr. No.	Type of Activity & Details (Paper Presentation/Project/Quize/etc)	Date	Name of Participating S students	Organizing Body Organizing Institute	Awards(Winner/Participation)	Level(State or National etc)
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1	Quiz Competition	14/03/2022	SONAVANE OM AJIT	RMDIOT Chinchwad, Pune- 33	Winner	Institute
2	Quiz Competition	14/03/2022	SONI NEERAJ RAKESH		Institute	
3	Quiz Competition	14/03/2022	PATIL DARSHANA MANOHAR		Participated	State
4	Quiz Competition	14/03/2022	KUMBHAR ADARSH RAJARAM		Participated	State
5	Quiz Competition	14/03/2022	CHILEKAR RUTVIK DILIP		Participated	State
6	Quiz Competition	14/03/2022	INAMDAR JASMIN BANDENAVAJ		Participated	State
7	Quiz Competition	14/03/2022	SURWASE DEEPA VYANKAT		Participated	State
8	Quiz Competition	14/03/2022	MAGAR MANSI RAMDAS		Participated	State
9	Quiz Competition	14/03/2022	SHAIKH MUSKAN ABDUL		Participated	State
10	Quiz Competition	14/03/2022	SONI SAUMYA ANURAG KAMAL		Participated	State
11	Quiz Competition	14/03/2022	BAADWALE RASOOLSAB RAMJAN		3rd Winner	State
12	Quiz Competition	14/03/2022	RIYA PRAVIN JANGAM		Participated	State
13	Quiz Competition	14/03/2022	SHUBHAM PAVAR		Participated	Institute
14	Quiz Competition	14/03/2022	GHOLAP TUSHAR ANIL		Participated	Institute
15	Quiz Competition	14/03/2022	SHINDE MANSI RAJU		Participated	Institute
16	Quiz Competition	14/03/2022	KAMBLE UDAY RAJU		Participated	Institute
17	Quiz Competition	14/03/2022	SHARMA SANDHYA SAHEB		Participated	Institute
18	Quiz Competition	14/03/2022	GIRI SAHIL ATISH		Participated	Institute
19	Quiz Competition	14/03/2022	SHINDE VITTHAL SATISH		Participated	Institute
20	Quiz Competition	14/03/2022	KAMBLE UTKARSH SUNDER		Participated	Institute
21	Quiz Competition	14/03/2022	RASHMI SHRIRANG KATAMBE		Participated	Institute
22	Quiz Competition	14/03/2022	JADHAV SANIKA SANJAY		Participated	Institute
23	Quiz Competition	14/03/2022	PATIL PARTH SANJAY		Participated	Institute
24	Quiz Competition	14/03/2022	JANGAM DIKSHA SUNIL		Participated	Institute
25	Quiz Competition	14/03/2022	ADITYA ANAND SHINDE		Participated	Institute
26	Quiz Competition	14/03/2022	GORE ASHWINI DAYANAND		Participated	Institute
27	Quiz Competition	14/03/2022	GHARATAE HARISH KIRAN		Participated	Institute
28	Quiz Competition	14/03/2022	GAIKWAD PRATHAMESH BHAURAO		Participated	Institute
29	Quiz Competition	14/03/2022	BELHEKAR PRANAV SURYAKANT		Participated	Institute
30	Quiz Competition	14/03/2022	BHARATE RUSHIKESH MAHAVIR		Participated	Institute

31	Quiz Competition	14/03/2022	SHINGTE GAJANAN SURESH		Participated	Institute
32	Quiz Competition	14/03/2022	PICHA REEYA TUSHAR		Participated	Institute
33	Quiz Competition	14/03/2022	DHOTRE DINESH BALU		Participated	Institute
34	Quiz Competition	14/03/2022	GAIKWAD KAVITA KRUSHNA		Participated	Institute
35	Quiz Competition	14/03/2022	WAYDANDE SAKSHI ANIL		Participated	Institute
36	Quiz Competition	14/03/2022	MANSI ANKUSH MANAKAR		Participated	Institute
37	Quiz Competition	14/03/2022	SAWALE SUSHIL SHANTARAM		Participated	Institute
38	Quiz Competition	14/03/2022	WAGHMARE VRUSHALI VIJAY		Participated	Institute
39	Quiz Competition	14/03/2022	GHONGADE DIVYA BALU		Participated	Institute
40	Quiz Competition	14/03/2022	PODAR RAMESHWAR GOVIND		Participated	Institute
41	Quiz Competition	14/03/2022	JAGTAP CHAITANYA SATISH		Participated	Institute
42	Quiz Competition	14/03/2022	AMAN ADESH MUTHA		Participated	Institute
43	Quiz Competition	14/03/2022	TEJAL SATISH CHANDALIYA		Participated	Institute
44	Quiz Competition	14/03/2022	AHIRE GAYATRI SANJAY		Participated	Institute
45	Quiz Competition	14/03/2022	ADITYA BALASAHEB KSHIRSAGAR		Participated	Institute
46	Quiz Competition	14/03/2022	SHINGAVI DHRUV VISHAL		Participated	Institute
47	Quiz Competition	14/03/2022	WAGHMARE SUJAL SANJAY		Participated	Institute
48	Quiz Competition	14/03/2022	BHANDARI SNEHA SATISH		Participated	Institute
49	Quiz Competition	14/03/2022	JAGTAP RUSHIKESH AMOL		Participated	Institute
50	Quiz Competition	14/03/2022	MALI PRERNA BHASKAR		Participated	Institute
51	Quiz Competition	14/03/2022	PARIHAR OM SHRIKRISHNANA		Participated	Institute
52	Quiz Competition	14/03/2022	KALE ADITYA MILIND		Participated	Institute
53	Quiz Competition	14/03/2022	LALLOTI SAMEER ANVAR		Participated	Institute
54	Quiz Competition	14/03/2022	SHINDE SARIKA MADEV		Participated	Institute
55	Quiz Competition	14/03/2022	BODWADE VISHWAJEET SAMADHAN		Participated	Institute
56	Quiz Competition	14/03/2022	DONGARE SANGHARSH BAPU		Participated	Institute
57	Quiz Competition	14/03/2022	SHINDE AKSHATA AVINASH		Participated	Institute
58	Quiz Competition	14/03/2022	KUMBHAR KASHINATH AMOGSIDHA		Participated	Institute

59	Quiz Competition	14/03/2022	SURVASE DIVYA VYANKAT		Participated	Institute
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Table No. 4.7.2.3

Sr. No.	Type of Activity & Details (Paper Presentation/Project/Quize/etc)	Date	Name of Participating Students	Organizing Body Organizing Institute	Awards(Winner/Participation)	Level(State or National etc)
1	Poster Presentation	14/03/2022	RoshaniKumbhar	RMDIOT Chinchwad, Pune-33	Winner	State
2	Poster Presentation	14/03/2022	Nikita Ukirade		Participated	State
3	Poster Presentation	14/03/2022	SaniyaNadaf		Participated	State
4	Poster Presentation	14/03/2022	ShravaniBedre		Participated	State
5	Poster Presentation	14/03/2022	Shweta Dixit		Participated	State
6	Poster Presentation	14/03/2022	ShrutiNarkhede		Participated	State
7	Poster Presentation	14/03/2022	Siddhi Mankar		Participated	State
8	Poster Presentation	14/03/2022	KalyaniJadhav		Participated	State
9	Poster Presentation	14/03/2022	SnehaGhodke		Participated	State
10	Poster Presentation	14/03/2022	ArifaParveen		Participated	State
11	Poster Presentation	14/03/2022	DhirajPatghar		3rd Winner	State
12	Poster Presentation	14/03/2022	SumitSawargawe		Participated	State
13	Poster Presentation	14/03/2022	Raj Shingavi		Participated	State
14	Poster Presentation	14/03/2022	PoojaKamble		Participated	State

Table No. 4.7.3.4

Sr. No.	Type of Activity & Details (Paper Presentation/Project/Quize/etc)	Date	Name of Participating Students	Organizing Body Organizing Institute	Awards(Winner/Participation)	Level(State or National etc)
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1	Paper Competition	14/03/2022	BAGMAR PRATIKSHA	RMDIOT Chinchwad, Pune-33	1 st Winner	State
2	Paper Competition	14/03/2022	CHAUDHARI LEENA		2 nd Winner	State
3	Paper Competition	14/03/2022	PANDEY SUDHIR		Participated	State
4	Paper Competition	14/03/2022	BHALDAR SANIYA		Participated	State
5	Paper Competition	14/03/2022	SHARMA SUHANI		Participated	State
6	Paper Competition	14/03/2022	SAWANT ATHARVA		Participated	State
7	Paper Competition	14/03/2022	JOSHI RAJ		Participated	State
8	Paper Competition	14/03/2022	JADHAV PRATIKSHA		Participated	State
9	Paper Competition	14/03/2022	RAMPURE SHREYASH		Participated	State
10	Paper Competition	14/03/2022	PATIL PREETAM		Participated	State
11	Paper Competition	14/03/2022	KUMBHAR CHAITANYA		3rd Winner	State
12	Paper Competition	14/03/2022	GHUTAL BALAJI		Participated	State
13	Paper Competition	14/03/2022	SHINDE SUMIT		Participated	State
14	Paper Competition	14/03/2022	JAGTAP SAKSHI		Participated	State
15	Paper Competition	14/03/2022	CHAVAN VRUSHALI		Participated	State
16	Paper Competition	14/03/2022	SHEGAONKAR SHRUTI		Participated	State
17	Paper Competition	14/03/2022	SOLANKAR PRANJALI		Participated	State
18	Paper Competition	14/03/2022	KAMBLE RISHIKESH		Participated	State
19	Paper Competition	14/03/2022	BHADRGE GANESH		Participated	State
20	Paper Competition	14/03/2022	BARGE SONALI		Participated	State
21	Paper Competition	14/03/2022	GAIKWAD ANUSHKA		Participated	State
22	Paper Competition	14/03/2022	SONAR DURGESH		Participated	State
23	Paper Competition	14/03/2022	PAWAR NIRANJAN		Participated	State
24	Paper Competition	14/03/2022	RAUT SNEHA		Participated	State
25	Paper Competition	14/03/2022	NADAF MARIYA		Participated	State
26	Paper Competition	14/03/2022	PAWAR KIRTI		Participated	State
27	Paper Competition	14/03/2022	MISAL SAKSHI		Participated	State

Academic Year 2019-20

Table No. 4.7.3.5

Sr. No.	Type of Activity & Details (Paper Presentation/Project/Quize/etc)	Date	Name of Participating Students	Organizing Body Organizing Institute	Awards(Winner/Participation)	Level(State or National etc)
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1	Paper Presentation Competition	10/02/2020	SonuGaikwad	RMDIOT Chinchwad, Pune-33	Participated	State
2	Paper Presentation Competition	10/02/2020	SomnathBhosale		State	
3	Paper Presentation Competition	10/02/2020	Ansari Tanveer		Participated	State
4	Paper Presentation Competition	10/02/2020	JayeshGharate		Participated	State
5	Paper Presentation Competition	10/02/2020	Shahanabaig		Winner	State
6	Paper Presentation Competition	10/02/2020	Richakhushwaha		Winner	State
7	Paper Presentation Competition	10/02/2020	Harshadachandane		Participated	State
8	Paper Presentation Competition	10/02/2020	Gayatrichinchwade		Participated	State
9	Paper Presentation Competition	10/02/2020	KomalM ohite		Participated	State
10	Paper Presentation Competition	10/02/2020	VarshaM ohite		Participated	State
11	Paper Presentation Competition	10/02/2020	Nikita sakale		Participated	State
12	Paper Presentation Competition	10/02/2020	Sanjivanimunde		Participated	State
13	Paper Presentation Competition	10/02/2020	Chaitnyakumnhar		Participated	State
14	Paper Presentation Competition	10/02/2020	Diptiwaydande		Participated	State
15	Mini Project Competition	10/02/2020	Sakshijagtap		Participated	State
16	Mini Project Competition	10/02/2020	VrushaliChavan		Participated	State
17	Mini Project Competition	10/02/2020	PranjaliSolankar		Participated	State
18	Mini Project Competition	10/02/2020	LeenaChoudhari		Participated	State
19	Mini Project Competition	10/02/2020	PratikshaBagmar		Participated	State
20	Mini Project Competition	10/02/2020	PranaliRane		Participated	State
21	Mini Project Competition	10/02/2020	ApurvaPanchbuddhe		Participated	State
22	Mini Project Competition	10/02/2020	AliyaMulla		Participated	State
23	Mini Project Competition	10/02/2020	Prajkatawalunj		Participated	State
24	Mini Project Competition	10/02/2020	Raj Joshi		Participated	State
25	Mini Project Competition	10/02/2020	RihanShaikh		Participated	State
26	Mini Project Competition	10/02/2020	Sumitshinde		Participated	State
27	Mini Project Competition	10/02/2020	SubratoRai		Participated	State
28	Mini Project Competition	10/02/2020	SudhirPande		Participated	State
29	Mini Project Competition	10/02/2020	Durgesh Sonar		Participated	State
30	Mini Project Competition	10/02/2020	SujitAtwe		Participated	State

31	Mini Project Competition	10/02/2020	RohitPalekar	RMDIOT Chinchwad, Pune-33	Participated	State
32	Mini Project Competition	10/02/2020	SagarDubal		Participated	State
33	Mini Project Competition	10/02/2020	AniketPawar		Participated	State
34	Mini Project Competition	10/02/2020	Ravinachavan		Runnerup	State
35	Mini Project Competition	10/02/2020	Nikita Choudhari		Runnerup	State
36	Mini Project Competition	10/02/2020	DipaliRathod		Runnerup	State
37	Mini Project Competition	10/02/2020	ShwetaLashkare		Runnerup	State
38	Mini Project Competition	10/02/2020	Janvi Mane		Participated	State
39	Mini Project Competition	10/02/2020	MansiBhosale		Participated	State
40	Mini Project Competition	10/02/2020	AtulChavan		Participated	State
41	Mini Project Competition	10/02/2020	AniketGhule		Participated	State
42	Mini Project Competition	10/02/2020	Atharava bender		Participated	State
43	Mini Project Competition	10/02/2020	ShikalgarFaizan		Participated	State
44	Mini Project Competition	10/02/2020	SmitieshKurve		Participated	State
45	Mini Project Competition	10/02/2020	SarveshPujare		Participated	State
46	Mini Project Competition	10/02/2020	Om kurkute		Participated	State
47	Mini Project Competition	10/02/2020	AjinkyaGovalkar		Participated	State

Academic Year 2018-19

Table No. 4.7.3.6

Sr. No.	Type of Activity & Details (Paper Presentation/Project/ Quize/etc)	Date	Name of Participating Students	Organizing Body Organizing Institute	Awards(Winner/Participation)	Level(State or National etc)
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1	Mini Project	11/01/2019	Nikita Choudhari	RMDIOT	Runner-up	Institute
2	Mini Project		DipaliRathod		Runner-up	Institute
3	Mini Project		Swati Khurpe		Runner-up	Institute
4	Mini Project		AniketPawar		Runner-up	Institute
5	Mini Project		TusharBhosale		Participated	Institute
6	Mini Project		Vaibhav Amble		Participated	Institute
7	Mini Project		YogeshDongre		Participated	Institute
8	Mini Project		AtharvBendre		Participated	Institute
9	Mini Project		Aliya R. Mulla		Participated	Institute
10	Mini Project		JanhviM.Mane		Participated	Institute
11	Mini Project		Vaibhav R. Thorat		Participated	Institute
12	Mini Project		Omkar L. Kunjir		Participated	Institute
13	Mini Project		RavinaChavan		Participated	Institute
14	Mini Project		YogeshwariPawar		Participated	Institute
15	Mini Project		ManasiBhosale		Participated	Institute
16	Mini Project		JyotiLonari		Participated	Institute
17	Mini Project		Tanveer Ansari		Participated	Institute
18	Mini Project		ShabanaBaig		Participated	Institute
19	Mini Project		SonuGaikwad		Participated	Institute
20	Mini Project		RichaKhushwaha		Participated	Institute
21	Mini Project		SakshiGhatge		Participated	Institute
22	Mini Project		DiptiWaydande		Participated	Institute
23	Mini Project		VaishnaviPowar		Participated	Institute
24	Mini Project		PriyankaDhage		Participated	Institute
25	Mini Project		HarshadaChandane		Participated	Institute
26	Mini Project		VarshaM ohite		Participated	Institute
27	Mini Project		GayatriChinchwade		Participated	Institute
28	Mini Project		Nikita Sable		Participated	Institute

Table No. 4.7.3.7

Sr. No.	Type of Activity & Details (Paper Presentation/Project/Quize/etc)	Date	Name of Participating Students	Organizing Body Organizing Institute	Awards(Winner/Participation)	Level(State or National etc)
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1	Paper Presentation	10/01/2019	OmkarPatil	RMDIOT	Winner	State
2	Paper Presentation		KamlendraTripathi		Winner	State
3	Paper Presentation		SiddhantSancheti		Participated	State
4	Paper Presentation		RohitRaut		Participated	State
5	Paper Presentation		GautamiBhujale		Participated	State
6	Paper Presentation		Priyanka Rajput		Participated	State
7	Paper Presentation		KanchanChaudhari		Participated	State
8	Paper Presentation		AshwiniWaghmare		Participated	State
9	Paper Presentation		RichaKushwaha		Participated	State
10	Paper Presentation		ShahanaBaig		Participated	State
11	Paper Presentation		SonuGaikwad		Participated	State
12	Paper Presentation		JayeshGharte		Participated	State
13	Paper Presentation		ShwetaPawar		Participated	State
14	Paper Presentation		Anushka Joshi		Participated	State
15	Paper Presentation		SimranVishwakarma		Participated	State
16	Paper Presentation		AnushkaKalandikar		Participated	State
17	Paper Presentation		KomalMohite		Participated	State
18	Paper Presentation		SanjeevaniMunde		Participated	State
19	Paper Presentation		Ansari Tanveer		Participated	State
20	Paper Presentation		ShivamShilamkar		Participated	State
21	Paper Presentation		AshwiniFadtare		Participated	State
22	Paper Presentation		KomalSavare		Participated	State
23	Paper Presentation		OmkarGaware		Participated	State
24	Paper Presentation		MeheraNadaf		Participated	State
25	Paper Presentation		Swarjit Joshi		Runner-up	State
26	Paper Presentation		MousumiSaha		Runner-up	State
27	Paper Presentation		Anjali Gupta		Participated	State

28	Paper Presentation	PravinSahu	1 st Winner	State
29	Paper Presentation	PankajSalunke	2 nd Winner	State
30	Paper Presentation	PankajKadam	Participated	State
31	Paper Presentation	PriyankaBhumkar	Participated	State
32	Paper Presentation	RevatiKathwate	Participated	State
33	Paper Presentation	SnehalSatyekar	Participated	State
34	Paper Presentation	ManjushaPalvi	Participated	State
35	Paper Presentation	ShubhamPalke	Participated	State
36	Paper Presentation	Rahul Patil	Participated	State
37	Paper Presentation	GauriHonrao	Participated	State
38	Paper Presentation	NilamNalkande	3rd Winner	State
39	Paper Presentation	NileshKedar	Participated	State
40	Paper Presentation	ShrinivasSuryawanshi	Participated	State
41	Paper Presentation	RupaliGorbanjara	Participated	State
42	Paper Presentation	ShitalPawar	Participated	State
43	Paper Presentation	BansiSapariya	Participated	State
44	Paper Presentation	Alisha Jamadar	Participated	State

RMDIOT
Chinchwad, Pune-33

5 FACULTY INFORMATION AND CONTRIBUTIONS (150)

Total Marks 121.03

Name	University Degree	Area of Specialization	Contribution to the program(% load)			Research Paper Publications	Faculty receiving Ph.D/M.Tech during the Assessment year	Current Designation	Initial Date of Joining	Association Type	At present working with the Institution(Yes/No)	In case of NO, Date of Leaving	IS Principal?
			CAY (2022-23)	CAYm1 (2021-22)	CAYm2 (2020-21)								
Mrs. Namita Rahul Dangi	M.E/M.Tech	Computer Engineering	100	100	100	4		Lecturer	19/11/2007	Regular	Yes		No
Mr. Amol Manoharrao Dhepe	M.E/M.Tech	Computer Engineering	78	100	100	3		Lecturer	01/03/2012	Regular	Yes		No
Mr. Shriram Bhanudasrao Khadke	M.E/M.Tech	Computer Engineering	82	100	74	2	2022	Lecturer	11/08/2016	Regular	Yes		No
Mrs. Pritee Sandip Kardile	M.E/M.Tech	Computer Engineering	100	82	83	2		Lecturer	01/08/2017	Regular	Yes		No
Mrs. Swati Vinayak Waghmare	M.E/M.Tech	Electronics and Telecommunication Engineering	53	38	21	2		Lecturer	08/08/2005	Regular	Yes		No
Mrs. Harsha Girish Wani	B.E/B.Tech	Computer Engineering	46	0	0			Lecturer	12/03/2022	Regular	Yes		No
Ms. Chetana Sanjay Chaudhary	B.E/B.Tech	Computer Engineering	63	0	0			Lecturer	26/09/2022	Regular	Yes		No
Mrs. Kanchan Rajesh Nemade	M.E/M.Tech	Electronics and Telecommunication Engineering	29	33	26	2		Lecturer	07/07/2009	Regular	Yes		No
Mrs. Seema Bhimsen Mane	M.Sc (Maths)	Mathematics	62	0	0			Lecturer	21/09/2022	Regular	Yes		No
Ms. Supriya Subhash Mundhe	M.Phil	English	63	38	33			Lecturer	27/08/2018	Regular	Yes		No

Mrs. Apurva Abhijit Deshpande	M.E/M.Tech	Computer Engineering	100	100	100	5		HOD	03/07/2003	Regular	Yes		No
Mr. Sachin Arvind Pawar	B.E/B.Tech	Mechanical	50	0	0			Lecturer	19/09/2022	Regular	Yes		No
Ms. Komal Prakash Solaskar	M. Sc (Physics)	Physics	0	17	20			Lecturer	16/08/2016	Regular	Yes		No
Mrs Vandana Mahesh Patil	M.Sc. (Chemistry)	Chemistry	0	17	20			Lecturer	27/08/2010	Regular	Yes		No
Ms. Chaitrali Sharad Kulkarni	M.Sc (Maths)	Mathematics	0	33	33			Lecturer	10/07/2017	Regular	Yes		No
Mr . Vishal Kundlik Bankar	M.E/M.Tech	Engineering Drawing	0	11	11			Lecturer	01/01/2019	Regular	No	31/03/2022	No
Mrs. Neeta Jayesh Mahale	M.E/M.Tech	Computer Engineering	0	0	100	3		Lecturer	06/08/2018	Contractual	No	10/05/2021	No

5.1 Student-Faculty Ratio (SFR) (25)

Total Marks 12.00

Year	N	F	SFR=N/F
2022-23(CAY)	225	8.26	27.24
2021-22(CAYm1)	190	6.69	28.40
2020-21(CAYm2)	216	7.21	29.96

Average SFR : 28.53

Assesement SFR : 12

5.1.1. Provide the information about the regular and contractual faculty as per the format mentioned below:

	Total number of regular faculty in the department	Total number of contractual faculty in the department
CAY(2022-23)	11	0
CAYm1(2021-22)	10	0
CAYm2(2020-21)	11	1

5.2 Faculty Qualification (25)

Total Marks 16.03

5.2.1 Faculty Qualification Index (20)

Institute Marks

16.03

	X	Y	F	$FQ = 2 \times [(10X + 7Y) / F]$
2022-23	6	2	9.00	16.44
2021-22	6	1	8.00	16.75
2020-21	6	1	9.00	14.89

Average Assessment : 16.03

5.2.2 Availability of Faculty/principal of that discipline with PhD. Qualification (5)

Institute Marks

0.00

Not Applicable .

5.3 Faculty Retention (20)

Total Marks 15.00

Institute Marks

15.00

Description	2021-22 (CAYm1)	2022-23 (CAY)
No of Faculty Retained	9	9
Total No of Faculty	10	11
% of Faculty Retained	90	82

Average : 85.91

Assessment Marks : 15.00

5.4 Faculty as participants in Faculty development/training activities conducted by other organizations (30)

Total Marks 30.00

Name of the faculty	Max 5 Per Faculty		
	2020-21 (CAYm2)	2021-22 (CAYm1)	2022-23 (CAY)
Mr . Vishal Kundlik Bankar	2.00	1.00	0.00
Mr. Amol Manoharrao Dhepe	2.00	4.00	5.00
Mr. Sachin Arvind Pawar	0.00	0.00	4.00
Mr.Shriram Bhanudasrao Khadke	2.00	2.00	5.00
Mrs Vandana Mahesh Patil	2.00	2.00	5.00
Mrs. Apurva Abhijit Deshpande	4.00	3.00	5.00
Mrs. Harsha Girish Wani	0.00	0.00	5.00
Mrs. Kanchan Rajesh Nemade	5.00	2.00	5.00
Mrs. Namita Rahul Dangi	2.00	2.00	5.00
Mrs. Neeta Jayesh Mahale	0.00	0.00	0.00
Mrs. Pritee Sandip Kardile	0.00	1.00	5.00
Mrs. Seema Bhimsen Mane	0.00	0.00	3.00
Mrs. Swati Vinayak Waghmare	5.00	3.00	4.00
Ms. Chaitrali Sharad Kulkarni	2.00	2.00	0.00
Ms. Chetana Sanjay Chaudhary	0.00	0.00	5.00

Ms. Komal Prakash Solaskar	2.00	2.00	5.00
Ms. Supriya Subhash Mundhe	5.00	5.00	5.00
Sum	33.00	29.00	66.00
RF = Number of Faculty required to comply with 25:1 SFR as	8.64	7.60	9.00
Assessment [$6 * (\text{Sum} / 0.5\text{RF})$](Marks limited to 30)	30.00	30.00	30.00

Average assessment over 3 years (Marks limited to 30): 30.00

5.4. a. Organized/ Conducted FDPs and STTP by this department at State / National Level (12)

Total Marks 10.00

Sr No.	Name of Guest	Qualification	Training on	Duration	Date
1.	Mrs.Medha Gijare NBA Co-ordinator ,AISSMS Polytechnic ,Pune	Ph.D. (Chemistry)	Guidance lecture on NBA	2 Days	9 & 10 February 2022
2.	Dr.P.L.Kothawade Principal Shri.Jain Vidya Parasarak Mandal's Adhyapak Mahavidyalay (B .Ed)Pune	Msc,MA,PhD,Net	Stress Management	2 Days	2 & 3 March 2022
3.	Mr.Dr.S.G .Kandalkar HOD Physics ,NBA Co- ordinator ,JSPM Polytechnic Tathawade,Pune	Ph.D(Physics)	Guidance lecture on NBA	2 Days	23 & 24 January 2023
4	Mrs.Medha Gijare NBA Co-ordinator ,AISSMS Polytechnic ,Pune	Ph.D. (Chemistry)	Guidance lecture on NBA	2 Days	16 & 17 February 2023
5	Mr.Dr.S.G .Kandalkar HOD Physics ,NBA Co- ordinator ,JSPM Polytechnic Tathawade,Pune	Ph.D(Physics)	Guidance lecture on NBA	2 Days	21 & 22 February 2023

5.5 Product development, Consultancy, Manufacturing contracts, testing contracts (8)

Total Marks 8.00

5.5.1 Product Development:-

Institute staff is always proactive in learning, organising, and presenting new things. The products developed by an organisation provide the means for education and are based on utilising technological innovation in a rapidly changing market. As COVID-19 has stopped access to many things, technology was a boon to all, but in chalk and duster pedagogy, it was very difficult to use technology for non-technical people. Taking this major issue into consideration, the institute has taken the initiative and organised a two-day e-Learning workshop on July 9 and 10, 2020, for PCMC teachers. Points taught at the workshop are as follows:

Use of Google technology in teaching (Drive and Classroom)

Creating Google Forms.

Use of Google Meet for online lectures and attendance.

Use of Disha, e-Path Shala, e-Class, and Balbharati.

Online Examination using TestMoz.

Create Online Question Paper for the exam.

Sr.No	Staff Involved	Title of Product	Duration	Year	Product Development Amount
1	Mr. A. A. Jain Mr.S.B.Khadake Mr.M.M.Momin Mr.S.B.Survase Mr.M.S.Palawade	Google Application	1 year	2020-2021	0/

2	Mr. A. A. Jain Mr.S.B.Khadake Mr.M.M.Momin Mr.S.B.Survase Mr.M.S.Palawade	Google Application	1 year	2021-2022	3000/-
3	Students Name 1.Darshana Patil 2.Adarsh Kumbhar 3.Jasmin Inamdar	Product :- Billing Software Company Name: - Electrofab Pvt engineers & Fabricators. Chinchwad Pune	1 year	2022-2023	5400/-
4	Students Name 1.Muskan Shaikh 2.soni Soumya 3.Soni Niraj	Product :-Billing Software Hotel Name :- Shahi Angare Hotel .Akurdi	1 year	2022-2023	4000/-

5.5.2 Consultancy and 5.5.4 Testing Contracts:-

Sr.No	Staff Involved	Title of the Consultancy Project	Duration	Year	Consultancy Amount	Testing Contract Amount
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1	Mr.P.G.Nemade Mr.R.P.Patil	Testing & Managing computer labs of Rasiklal Manikchand Dhariwal's Pharmacy College, Chinchwad & Rasiklal Manikchand Dhariwal's D.Ed., B.Ed. Colleges , Chinchwad	1 year	2020-2021	0/-	0/-
2	Mr.P.G.Nemade Mr.R.P.Patil	Testing & Managing computer labs of Rasiklal Manikchand Dhariwal's Pharmacy College, Chinchwad & Rasiklal Manikchand Dhariwal's D.Ed., B.Ed. Colleges , Chinchwad	1 year	2021-2022	1000/-	1000/-
3	Mr.P.G.Nemade Mr.R.P.Patil	Testing & Managing computer labs of Rasiklal Manikchand Dhariwal's Pharmacy College, Chinchwad & Rasiklal Manikchand Dhariwal's D.Ed., B.Ed. Colleges , Chinchwad	1 year	2022-2023	5000/-	4000/-

5.6 Faculty Performance Appraisal and Development System (FPADS) (30)

Total Marks 30.00

A. A well-defined FPADS instituted for all the assessment years (5)

Institute Marks

5.00

In our College Faculty Performance Appraisal form is collected from each faculty, in this Appraisal form they need to show their academic performance, contribution towards teaching learning process, innovations and research for their self-renewal to cope up with in technology and develop expertise for effective implementation of curricula. The main objective of this appraisal and evaluation system are:-

1. Effective Academic performance of the individual faculty in theory as well as laboratory related work.
2. Effective teaching –learning process during the Assessment.
3. Consider the contribution of individual faculty member in the design and development of learning material.
4. Evaluating the performance of the faculty as guidance and counselling of students.
5. Promote and allow faculties to participate in the research publications in nationally and internationally journal.
6. Evaluating the performance of the faculty as Co-curricular activities and administrative functions.

B. Its implementation and effectiveness (15)

Institute Marks

15.00

1. Faculty Appraisal Scheme:-

1. Faculty shall submit self-Appraisal form to head of department at the end of academic year.
2. Head of department shall collect the appraisal form and submit self-evaluation report of all faculties along with student feedback report and confidential report to Principal.
3. Principal shall form a committee at institute level to perform evaluation of self-evaluation report.
4. Overall appraisal of faculty shall be done on the following basis
 - 30 % for Assessment of Self Appraisal.
 - 20 % for the student's feedback.
 - 50 % for Assessment by HOD.

5. Recommendation of committee shall be submitted to management for final approval.

6. Following Incentives shall be offered for the Faculties after appraisal report.
 - Salary increments
 - Flexible norms for attending national and international seminars / conferences .Training workshops
 - Promotions in academic Administrative positions (Co-ordinator, HOD, In –Charge Committee, Committee memberships etc.)

**Shri Jain Vidya Prasarak Mandal's
Faculty Appraisal Form**

1. Name of College:
2. Name of faculty/Department/Date of Joining/ Designation/Address

A) Academic/ Research


1. Enhancement in academic qualification after joining this College.
2. Use of Modern teaching aids in class room/ Lab.
3. Use of new methodologies in teaching
4. Project guidance
5. Organization of seminar/workshop etc.
6. Academic awards in last three years
7. Attendance of national/ State/ Local level subject seminar/workshop/training in last three year minor/Major.
8. Research activities- Project/Research Paper publication etc.
9. Use of library Facility
10. Suggestion for overall development of college
11. Paper taught for last three year in this college
12. Result – from the year joining this year

B) Participation in college administration at different level

1. Admission Process
2. Students Counselling
3. Examination
4. Placement Activity
5. Any other

C) Overall Behaviour-

1. Relation with Students
2. Relation with colleagues
3. Commitment with college
4. Participation in curricular and Extra-curricular activities i.e. NSS/Sports/Students welfare/Cultural activity/ local programs etc.
5. Punctuality
6. Obedience



2. Teacher Appreciation Letter Scheme: - At the institute level, a committee is in charge of checking and evaluating teachers. The principal of the college is the head of this committee. The committee head and members evaluate student's feedback, academic performance, result analysis, and the teacher's contribution at the institute level. The one with the highest score is declared a remarkable teacher and awarded an appreciation certificate.



॥ पठनं ज्ञानं सती दया ॥
Shri Jain Vidya Prasarak Mandal's
RASIKLAL M. DHARIWAL INSTITUTE OF TECHNOLOGY



Guru Fattechand Bhavan, Shri Fattechand Marg, Pavananagar, Chinchwad, Pune - 411033.
Tel.: 020-27353516

Website : www.rmdiot.com
Email : rmdiot@gmail.com

AICTE Approval No.: 740-89-009 (NDIP) / ET / 2000
Govt. Approval No.: PTI 202K / (479/01) TE - 2

Ref. No.: SJVPM/RMDIOT/
2022-23/1987B

Appreciation letter Date: 05/09/2022

To,
Mr. S. B. Khadke
Lecturer in Computer Dept,
Rasiklal. M. Dhariwal
Institute of Technology,
Chinchwad, Pune.

Subject: Appreciation letter for remarkable teaching

Honorable Sir,

We extend our heartfelt appreciation for your remarkable teaching. Your engaging style, expert knowledge, and approachability have had a positive impact on our students' learning experiences. The feedback we received was overwhelmingly positive, highlighting your dedication and innovative techniques. Your commitment to nurturing students' growth is commendable, and we are honored to have you as part of our esteemed faculty. Thank you for shaping future leaders and fostering a love for learning. Your influence will undoubtedly leave a lasting impression on their lives.



Principal

RASIKLAL M. DHARIWAL
INSTITUTE OF TECHNOLOGY
Chinchwad, Pune-411 033



C. Details of qualification up-gradation of faculty (10)

Institute Marks

10.00

RASIKLAL MANIKCHAND DHARIWAL INSTITUTE OF TECHNOLOGY (RMDIOT) encourages all the staff members to take part in Career Advancement to upgrade qualifications and as per AICTE Norms.

This will allow them to improve the Classroom / Laboratory performance as well as competency levels. The staff members approach the HOD/Principal at the start of academic year with their interest for enrolment to the PG/PhD programs. The Academic load of such staff is adjusted to suit to their commitments. The list of faculty members who are upgrading their qualification in the last years is included in the table.

Name of the Faculty	Qualification up-gradation	Year Of Passing
Mrs.A.A.Deshpande	ME(Computer)	2015
Mrs.S.V.Waghmare	ME(E&TC)	2013
Mrs.N.R.Dangi	ME(Computer)	2014
Mr. A.M.Dhepe	ME(Computer)	2016
Mr.S.B.Khadake	ME(Computer)	2022
Mrs.P.S.Kardile	ME(Computer)	2017
Mrs.S.S.Mundhe	MPhil(English)	2023

6 FACILITIES AND TECHNICAL SUPPORT (100)

Total Marks 100.00

6.1 Availability of adequate, well equipped classrooms to meet the curriculum requirements (10)

Total Marks 10.00

The department has sufficient infrastructure to conduct the academic activities as per curriculum. The department has 06 classrooms with maximum seating capacity of 60 students on time sharing basis for all classes as per time table. The vision and mission statements are displayed inside the laboratories. There is sufficient ventilation and illumination in all the laboratories. The department has shared smart class room, workshops.

Table 6.1.1 Details of Classrooms

Room Description	Room No	Usage	Shared /Exclusive	Required Adequacy as per Norms	Availability Facility
Class Rooms	102 (1 st Floor)	Computer Dept.	Exclusive	YES	Green Board,Benches,Fans,Tube Lights,Dustbin
	103 (1 st Floor)	Computer Dept.	Exclusive	YES	Green Board,Benches,Fans,Tube Lights,Dustbin
	104 (1 st Floor)	Computer Dept.	Exclusive	YES	Green Board,Benches,Fans,Tube Lights,Dustbin
	207 (2 nd Floor)	Computer Dept.	Exclusive	YES	Green Board,Benches,Fans,Tube Lights,Dustbin
	208 (2 nd Floor)	Computer Dept.	Exclusive	YES	Green Board,Benches,Fans,Tube Lights,Dustbin
	209 (2 nd Floor)	Computer Dept.	Exclusive	YES	Green Board,Benches,Fans,Tube Lights,Dustbin

Smart Classroom	205 (2 nd Floor)	For All Branches	Shared	YES	Smartboard with projector,Pc, Benches,Fans Tube Lights,Dustbin
Drawing Hall	101 (1 st Floor)	Computer Dept.	Exclusive	YES	Green Board,Drawing Tables & Stools,Fans,Tube Lights,Dustbin

6.2 Availability of adequate and well-equipped workshops, Laboratories and Technical manpower to meet the curriculum requirements (40)

Total Marks 40.00

A. Adequacy (10)

Institute Marks

10.00

- All Laboratories are furnished with efficient equipment's for students to do their practical work during the working hours as per the time table and beyond the working hours according to their own interest.
- Equipment's and Consumables are storing their respective cupboard for easy accessibility of the faculty, Technician.
- All the laboratories are provided with adequate display boards for necessary information to students and sufficient furniture facilities.
- The student-computer ratio is 1:1.

Table 6.2.1 Adequacy of laboratory

Sr.No	Name of the laboratory	No of Students Setup(Batch Size)	Weekly utilization status (all the courses for which the laboratory is utilized)
1	Fundamental Lab	20	14 Hours/Week
2	Software Testing Lab	20	20 Hours/Week
3	Programming Lab	20	20 Hours/Week
4	Internet Lab	20	16 Hours/Week
5	Microprocessor Lab/Unix Lab	20	12 Hours/Week
6	Hardware Lab	20	18 Hours/Week
7	Project Lab	20	06 Hours/Week
8	Digital Electronics Lab	20	16 Hours/Week
9	Electrical Lab	20	16 Hours/Week
10	Physics Lab	20	28 Hours/Week
11	Chemistry Lab	20	28 Hours/Week

B. Quality of Labs/workshop (20)

Institute Marks

20.00

- Laboratories are given more importance than theoretical class work because the students are doing all the application-oriented practical work in Labs.
- Every Lab is provided with separate faculty in-charge and adequate facilities for the development of complete practical knowledge to the students.
- The quality of every laboratory depends on its effective utilization by the students.
- Every practical work is done by the students himself under the guidance of concerned faculty member and the students have to write the record of the work and submit the same on next practical class.
- For every Lab, the cleanliness and effectiveness is maintained for the welfare of students to fulfill their satisfied atmosphere.
- For that, the safety measures like, fire extinguisher are maintained periodically, and students are strictly invited to wear uniform which is monitored scrupulously.
- Also the display boards like DO's and DON'T's, List of experiments (Syllabus), specification of every equipment are also displayed for improving awareness of students about every technical experiments.

C. Technical Manpower support –Eligible and Adequate (10)

Institute Marks

10.00

Table 6.2.2 Details of Laboratories

Sr. No	Name of the Laboratory	No. of students per setup (Batch Size)	Name of the Important Equipment (Costing More than Rs.30,000)		Weekly utilization status (all the course for which the lab is utilized)	Technical Manpower Support		
			Hardware	Software		Name of the Technical Staff	Designation	Qualification
1.	Fundamental Lab(304)	20	Lenovo Desktop 19" LCD, Intel Core i5 2.25 Ghz 6 th Gen.,DDR3 RAM 8/16GB,512GB SSD,Dell USB Keyboard & Mouse Assembled PC Dell 18.5" LCD,Intel i3 Processor 3.30Ghz,500GB HDD,2 GB DDR3 RAM,Dell Keyboard & Mouse D-Link Switch With 4U Rack	Microsoft Windows 10 Pro,MS Office 2013 Pro, Adobe Reader , Turbo C With Basic Software	14 Hours/Week	Mrs. Ingale H. D.	Lab Assistant	Diploma in E & TC

2.	Software Testing Lab(305)	20	<p>Dell 3470 Desktop 19" LCD, Intel(R) 3.60GHz,4 GB DDR3 RAM,1 TB HDD</p> <p>Assembled PC</p> <p>Dell 18.5" LCD,Intel i3 Processor 3.30Ghz,500GB HDD,2 GB DDR3 RAM,Dell Keyboard & Mouse</p> <p>D-Link Switch With 4U Rack</p>	<p>Microsoft Windows 10 Pro,</p> <p>MS Office 2013 Pro, Adobe Reader , Wire shark, Turbo C</p> <p>With Basic Software.</p>	20 Hours/Week	Mr. Patil R.P.	Lab Assistant	MCM
3.	Programing Lab(306)	20	<p>HCL Desktop 18.5" LCD,Intel Dual Core 3.2Ghz ,500GB HDD, 2GB RAM,PS2 Keyboard & Mouse, Sony Projector ,</p> <p>Artis 5.1 Speakers</p> <p>D-Link Switch With 9U Rack</p>	<p>Microsoft Windows 7 Pro,MS Office 2010 Pro, Adobe Reader , Turbo C</p> <p>With Basic Software.</p>	20 Hours/ Week	Mr. Nemade P.G.	System Analyst	Diploma in E & TC(CCNS)
4.	Internet Lab(307)	20	<p>HCL Desktop 18.5" LCD,Intel Dual Core 3.2Ghz ,500GB HDD, 2GB RAM,PS2 Keyboard & Mouse,</p> <p>D-Link Switch</p>	<p>Microsoft Windows 7 Pro,MS Office 2010 Pro, Adobe Reader , Turbo C,Oracle JAVA,Python,</p> <p>With Basic Software</p>	16 Hours/Week	Mr. Patil R.P.	Lab Assistant	MCM

5.	Microprocessor Unix Lab(308)	20	<p>Assembled PC,Dell 18.5" LCD,Intel i3 Processor 3.30Ghz,500GB HDD,2 GB DDR3 RAM,Dell Keyboard & Mouse</p> <p>D-Link Switch With 4U Rack</p>	<p>Microsoft Windows 8 Pro, Red Hat Linux 6.0, Visual Studio, TASM, Oracle database 11g,MS Office 2010 Pro, Adobe Reader , Turbo C</p> <p>With Basic Software</p>	12 Hours/Week	Mr. Nemade P.G.	System Analyst	Diploma in E & TC(CCNS)
6.	Hardware Lab/Server Room(312)	20	<p>Assembled PC,Dell 18.5" LCD,Intel i3 Processor 3.30Ghz 500GB HDD, 2/4 GB DDR3 RAM,Dell Keyboard & Mouse</p> <p>HP Proliant ML 110G6</p> <p>Intel xenon CPU@2.40 (mailto:CPU@2.40) Ghz,8 GB DDR3 RAM,750 GB HDD HCL 17"LCD,Dell Keyboard & Mouse</p> <p>APC 1100 VA UPS</p> <p>42 U RACK,</p> <p>Fortinate 50E Firewall,</p> <p>D-Link Switch,</p>	<p>Microsoft Windows 7 Pro,MS Office 2010 Pro, Adobe Reader , Turbo C</p> <p>With Basic Software</p> <p>Microsoft Windows Server 2008 R2</p>	18 Hours/Week	Mr. Patil R. P/ Mr. Nemade P.G.	Lab Assistant/ System Analyst	MCM/Diploma in E & TC(CCNS)
7.	Project Lab (302)	20	<p>LENOVO COREi5 6TH/8 GB DDR4 / 500GB SSD / New Lenovo LED 19.5", Dell USB Keyboard/Mouse</p> <p>D-Link Switch With 9U Rack</p>	<p>Microsoft Windows 10 Pro,</p> <p>MS Office 2013 Pro, Adobe Reader , Turbo C</p> <p>With Advanced Software.</p>	06 Hours/Week	Mrs.Patil P.M	Lab Assistant	MCM

8.	Digital Electronics Lab (203)	20	Digital Kits,CROs,Function Genrators, Multimeters.	N/A	16 Hours/Week	Mrs. Ingale H. D.	Lab Assistant	Diploma in E & TC
9.	Electrical Lab	20	1)Three Phase Auto-Transformer, 2)Rectifier Unit, 3)Lamp Bank, 4)DC Shunt Motor Coupled with Shunt Generator with Starter, 5)Single Phase Induction Motor with Starter	N/A	16 Hours/Week	Mrs.Ingale H. D.	Lab Assistant	Diploma in E & TC
10.	Physics Lab (301)	20	1) Micrometer Screw gauge. 2) Vernier Caliper. 03) Ohms law kit. 4) P-N Junction Diode Kit. 5) Forbidden Energy band gap kit. 6) Series and parallel resistance kit. 7) Prism. 8) Glass Slab. 9) Young Modulus. 10) Spherometer. 11) Voltmeter	N/A	28 Hour/Week	Mrs.D. S. Suryawanshi	Lab Assistant	M.Pharmacy

11.	Chemistry Lab (309)	20	1) Digital PH Meter. 2) Conductivity Meter. 3) Redwood Viscometer. 4) Digital Electronic weighing Balance. 5) Hot Air Oven. 6) Nephelometer.	N/A	28 Hour/Week	Mrs.D. S. Suryawanshi	Lab Assistant	M.Pharmacy
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Sr. No	Name of the Laboratory	Number of students per set up(Batch Size)	Name of the Important Equipment(Costing more than Rs.30,000)	Weekly utilization status(all the courses for which the lab is utilized)	Technical Manpower Support		
					Name of the Technical staff	Designation	Qualification
1							

6.3 Additional facilities created for improving the quality of learning experience in laboratories (20)

Total Marks 20.00

A. Facilities (10)

Institute Marks

10.00

Table 6.3.1 Additional Facilities

Sr.No	NAME OF THE FACILITY	YEAR OF ESTABLISHMENT
1	Android Application Development Facility	2022-2023
2	Infosys Spring Board	2021-2022
3	Smart Class Room	2021-2022
4	Digital Library	2020-2021
5	Common Wi-Fi Facility	2019-2020
6	Departmental Library	2017-2018
7	Spoken Tutorial	2016-2017

B. Effective Utilization (5)

Institute Marks

5.00

Table 6.3.2 Effective Utilization

Sr.No	NAME OF THE FACILITY	YEAR OF ESTABLISHMENT	EFFECTIVE UTILIZATION
1	Android Application Development Facility	2022-2023	By using this facility students' are able to develop his own mobiles based applications
2	Infosys Spring Board	2021-2022	Student can login itself and learn industry oriented certification course provide by Infosys Company
3	Smart Class Room	2021-2022	Throughout the semester
4	Digital Library	2020-2021	Student can Download E books from Link Provide by our Institute on the our website. rmdiot.com
5	Common Wi-Fi Facility	2019-2020	By using this facility students can learn apart from the curriculum
6	Departmental Library	2017-2018	Issue book to a student for specific period
7	Spoken Tutorial	2016-2017	MSBTE is associated with IIT Bombay Spoken tutorial software program to impart IT skill ti the student

C. Relevance to POs/PSOs (5)

Table 6.3.3 Relevance to POs/PSOs

Sr.No	NAME OF THE FACILITY	YEAR OF ESTABLISHMENT	RELEVANCE POs	RELEVANCE TO PSOs
1	Android Application Development Facility	2022-2023	PO1,PO2,PO3, PO4,PO5,PO6, PO7	PSO1,PSO2
2	Infosys Spring Board	2021-2022	PO1,PO2,PO3, PO4,PO5,PO6, PO7	PSO-1
3	Smart Class Room	2021-2022	PO-1,PO-3, PO-4,PO-6	PSO1, PSO2
4	Digital Library	2020-2021	PO1,PO2,PO3,PO5, PO7	PSO1
5	Common Wi-Fi Facility	2019-2020	PO1,PO2,PO3, PO4,PO5,PO6, PO7	PSO1, PSO2
6	Departmental Library	2017-2018	PO1,PO2,PO3, PO4,PO5,PO6, PO7	-
7	Spoken Tutorials	2016-2017	PO1,PO2,PO3, PO4,PO5,PO6, PO7	PSO-1

Sr. No	Facility Name	Details	Reason(s) for creating facility	Utilization	Areas in which students are expected to have enhanced learning	Relevance to POs/PSOs
1	Android Applic	In AN Lab (303	To Understand	By using this fe	Better Understanding	PO1,PO2
2	Digital Library	Available links	Student can ac	Student can D	For better understandin	PO1,PO2,PO3
3	Infosys Spring	On the www.inf	'Digital literacy'	Student can lo	To grasp extra knowledg	PO1,PO2,PO3
4	Smart Class Ro	E-board & pr	Smart class ro	Throughout th	The graphs, design, mo	PO-1,PO-3, PC
5	Common Wi-Fi	32 MBPS Wire	Facility to staff	By using this fe	More knowledge apart fr	PO1,PO2,PO3
6	Departmental I	Departmental I	Deep knowledç	Issue book to ε	All subjects	PO1,PO2,PO3
7	Spoken Tutoriæ	C,C++, JAVA, L	IIT Bombay onl	3 LAB around .	C,C++, JAVA	PO1,PO2,PO3

6.4 Laboratories: Maintenance and overall ambiance (10)

Total Marks 10.00

6.4.1 General Rules of Conduct in Laboratories.

- Remove Shoes while entering in the laboratories.
- Shutdown Computer Properly after Use.
- Switch Off the Electrical Switches while Leaving From Laboratories.
- Mobile Phone are Strictly Prohibited in the Laboratories.
- All the laboratories are displayed with technical informative charts.
- All laboratories are displayed with practical session time tables, list of experiments, list of equipment and safety measures.

6.4.2 Maintenance of Laboratory Equipments.

- Periodic service and maintenance are taken care.
- Numbering of personal computers is done for easy maintenance and identification.
- Based on the requirement software and system up gradation will be done.
- In order to keep computers healthy, Antivirus software were installed and virus signature files are updated regularly.
- All laboratories are maintained with IN-OUT entry registers.
- Consumables are purchased for every academic year for smooth conduct of laboratories.
- Separate Dead Stock Registers for each lab are maintained.
- Maintaining a Separate Server room for managing all Systems with Network connections (LAN).

6.4.3 Overall Ambience

- All laboratories are equipped with hardware and software as per the requirement of curriculum and syllabus.
- Laboratories are available beyond the working hours if necessary.
- All laboratories have good light and ventilation with tubes and fan arrangement.
- Each lab can accommodate a batch of 30 students

6.5 Availability of computing facility in the department (10)

Total Marks 10.00

Institute Marks

10.00

Sr. No	No Of Computer terminals	Students Computer Ratio	Details of Legal Software	Details of Networking	Details of Printers, Scanners etc.
1	122	2:1	Microsoft Volur	Leased Line 3;	Canon LBP 25

6.6 Language lab (10)

Total Marks 10.00

Language is a vital tool for communication. The proper learning of language helps us to develop language proficiency, personality and self-confidence. English language lab has been designed to provide the learners with a strong platform for practical training for language. Language lab skilfully and effectively inculcates language skills among learners. They are exposed to practical use of language that plays vital role in everyday usage of English language teaching learning process.

The main objectives of the Language Lab are:

- To emphasize the need of English in the technical world
- To equip the students with good communication skills
- To train the students in the art of conversation and discussion
- To prepare them for interviews and future job environments

Language Lab availability and utilization:

Table 6.6.1

No. of Computer & Headphone Terminals (availability)	Student Computer Ratio	No. of hours per week (utilization)	Beneficiaries	Software used	Lab Incharge
20	1:1	28	All FY Students	Clarity English success	Ms. Mundhe S. S.

Details of Learning Resources:

Table 6.6.2

Sr. No.	Learning resources	Specification
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1	Language learning software (Clarity English Success)	<ul style="list-style-type: none"> • With facility for listening, speaking, reading, writing and recording • Software contains six module with explanation and no. of exercise • Module 1-grammar • Module 2-reading • Module 3-listening • Module 4-writing • Module 5-speaking • Module 6-pronunciation • For evaluation it has auto generated result • Notepad to take notes • Software has certificate for successful completion of assignment • It has clarity recording software to record
2	Open learning sources	<ul style="list-style-type: none"> • Websites, NPTEL platform
3	Non electronic visual resources	<ul style="list-style-type: none"> • Charts, brain mapping diagram, library
4	ICT Resources	<ul style="list-style-type: none"> • Computer, projector

Activities Conducted:

- Dialogue Writing & Paragraph Writing
- Group Discussion
- Mock Interviews
- PPT presentation
- Reading Activity
- Role play or Skit Presentation
- Speeches
- Solving online quizzes

Telegram Link-Language Lab Activity

- <https://t.me/+8wzv u3p-9SxmYTM 1> (<https://t.me/+8wzv u3p-9SxmYTM 1>)

7 CONTINUOUS IMPROVEMENT (75)

Total Marks 75.00

7.1 Actions taken based on the resultsof evaluation of each of the POs and PSOs (25)

Total Marks 25.00

POs Attainment Levels and Actions for Improvement- (2021-22)

POs	Target Level	Attainment Level	Observations
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PO 1 : Basic and Discipline specific knowledge

PO 1	2.27	1.93	1) It is Observed that the target attainment level is reasonably achieved. 2) Students are need to improve the knowledge of basic fundamental subjects.
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Action 1: Extra classes as well as practice sessions are conducted for better understanding the methods to solve numerical in Mathematics.
Action 2: Students are asked to write formulae repeatedly in the classroom so that they could easily solve the problems of Mathematics.
Action 3: Mentoring: Personal attention is given and counseling is done for weak students to uplift their confidence through mentoring systems.

PO 2 : Problem analysis

PO 2	2.16	1.91	1) Analyzing, modeling, processing and solving the problems are moderately achieved.
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Action 1: Students apply the knowledge of technical subject for completion of micro-project and final year project.
Action 2: Students are asked to write assignments based on question bank prepared by respective subject teacher with reference to model answer paper.

PO 3 : Design/ development of solutions

PO 3	2.11	1.82	Students acquired necessary skills to design solutions for the engineering problems are reasonably achieved.
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Action 1: Expert lectures are organized on advance technologies and also make them interested in developing mini projects.
Action 2: Students are placed for 3-4 weeks in plant training program during summer vacation.

PO 4 : Engineering Tools, Experimentation and Testing

PO 4	2.16	1.78	It is Observed that Competent usage of modern tool is reasonably achieved.
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Action 1: Students are made aware of different hardware and software tools that can be used.
Action 2: Mini projects are developed by students based on real database application.

PO 5 : Engineering practices for society, sustainability and environment

PO 5	1.86	1.72	The students' awareness towards professional engineering practices is almost achieved.
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Action 1: Project Guides are asked to assign projects to the students on actual problems of society which will fulfill desired needs of society.
 Action 2: Social activities are arranged to create social awareness in students.
 Action 3: Guest Lectures are conducted on topics such as time / stress management.

PO 6 : Project Management

PO 6	2.04	1.79	Guidance in planning, allocating responsibilities and setting timelines to meet goals and financial management skills are moderately attained.
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Action 1: Expert lectures/Guest lectures to be conducted on aspects of Project Management, leadership and team work.
 Action 2: Working in team abilities to be developed through micro projects given in the course.
 Action 3: Project reviews are conducted regularly.

PO 7 : Life-long learning

PO 7	2.06	1.91	Emphasis is made based on the up-gradation of knowledge and modern technologies are nearly attained.
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Action 1: Students are encouraged to participate in various technical competitions and events.
 Action 2: Students are motivated to carry out self-learning and self-discussion.
 Action 3: Students are provided the facilities of digital library for self-learning.

PSOs Attainment Levels and Actions for Improvement- (2021-22)

PSOs	Target Level	Attainment Level	Observations
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PSO 1 : Computer Software and Hardware and Hardware Usage: Use state of the art technologies for operation and application of computer software and hardware.

PSO 1	2.17	1.72	Students are not able to choose correct hardware or software tools.
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Action1: Students are made aware of use of different tools.
Action2: They are taught about handling different hardware or software and testing tools.

PSO 2 : Computer Engineering Maintenance:Maintenance Computer Engineering related software and hardware systems.

PSO 2	2.04	1.45	Because of weak knowledge about fundamental and advanced skills, students are not able to solve problems at client site.
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Action 1: Students are taught the importance of fundamental knowledge.
Action 2: Industrial visits are arranged to make the students aware of advanced technologies in industries.
Action 3: Four weeks' In-plant training in industries is arranged for the second year students.

7.2 Improvement in Success Index of Students without the backlog (10)

Total Marks 10.00

Institute Marks

10.00

Items	Latest Passed out Batch (2019-20)	Latest Passed out Batch minus 1 (2018-19)	Latest Passed out Batch minus 2 (2017-18)
Success Index (from 4.2.1)	0.48	0.14	0.14

7.3 Improvement in Placement and Higher Studies (10)

Total Marks 10.00

Institute Marks

10.00

Items	Latest Passed out Batch (2019-20)	Latest Passed out Batch minus 1 (2018-19)	Latest Passed out Batch minus 2 (2017-18)
Placement Index (from 4.6)	0.45	0.96	1.03

7.4 Improvement in Academic Performance in Final year (10)

Total Marks 10.00

Institute Marks

10.00

Items	Latest Passed out Batch (2019-20)	Latest Passed out Batch minus 1 (2018-19)	Latest Passed out Batch minus 2 (2017-18)
Academic Performance Index (from 4.3)	3.85	7.20	8.30

7.5 Internal Academic Audits to Review Complete Academics & to Implement Corrective Actions on Continuous Basis (10)

Total Marks 10.00

Institute Marks

10.00

Items	2021-22 (CAYm1)	2020-21 (CAYm2)	2019-20 (CAYm3)
Internal Academic Audits	Conducted Internally	Conducted Internally	Conducted Internally

7.6 New Facility created in the Program (10)

Total Marks 10.00

Institute Marks

10.00

Items	2021-22 (CAYm1)	2020-21 (CAYm2)	2019-20 (CAYm3)
New Facility Created	Smart classrooms	Digital library	Wi-Fi Facility

8 STUDENT SUPPORT SYSTEMS (50)

Total Marks 50.00

8.1 Mentoring system to help at individual level (10)

Total Marks 10.00

8.2 Feedback analysis and reward/ corrective measures taken, if any (10)

Total Marks 10.00

Feedback collected for all courses: YES/NO; Specify the feedback collection process; Average Percentage of students who participate; Specify the feedback analysis process; Basis of reward/ corrective measures, if any; Indices used for measuring quality of teaching & learning and summary of the index values for all courses/teachers; Number of corrective actions taken.

A. Methodology being followed for feedback collection, analysis and its effectiveness (5)

8.2.1 Methodology:

- a. With the aim of improving teaching-learning practices in all departments of this Institute, following feedbacks are collected from the students.
- b. The feedback covers 5 parameters, as shown in the provided sample feedback. Each parameter is rated on a scale from 1-5.parameters are as follows:
- 1) Punctuality & Discipline
 - 2) Domain Knowledge
 - 3) Presentation Skills & Interaction with Students
 - 4) Ability to Resolve Difficulties
 - 5) Effective Use of Teaching Aids

D-14

For AICTE Diploma Courses wef - 2017-18

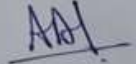
Maharashtra State Board of Technical Education

STUDENTS FEED BACK

(Head of the Department shall take the Feed Back at the End of Second Class Test)

Academic Year: 22-23 Program: CO Semester: 1st Date:

Sr. No	Name of Course (TH / PR)	Name of Faculty	Each Parameter to be Assessed on the Scale of 1 to 5 (1 - Lowest & 5 - Highest)					Total (Max 25)
			Punctuality & Discipline	Domain Knowledge	Presentation Skill & Interaction with Students	Ability to Resolve Difficulties	Effective Use of Teaching Aids	
1	PHYSICS	Deskar madam	5	5	4	4	4	22
2	CHEMISTRY	Jadhav madam	4	4	4	5	4	21
3	MATHS	Mane madam	5	5	5	5	5	25
4	ENGLISH	Mundhe madam	5	5	5	5	5	25
5	ICT	Khadke sir	5	5	5	5	5	25
6	DRAW	Pawar sir	5	5	4	4	4	22


 (Name & Signature of HOD)




Image 8.2.1.1 feedback parameter

- c. Course wise faculty feedbacks collected from students manually.
- d. Towards the end of the semester after Unit Test-2 a feedback sheet is distributed among the students from all departments.

e. The Head of Department fill and collects the feedback and conducts specific discussions with each faculty member regarding areas of weakness and the necessary corrective measures. The Head of Department may also suggest remedies such as organizing trainings based on identified needs and requirements.

8.2.1.2 Feedback analysis:

- a. The achieved feedback for each parameter is mapped and facilitates quick analysis.
- b. The provided sample demonstrates an example of feedback analysis for a course.

8.2.1.3 Effectiveness

- a. The feedback received is utilized to evaluate the quality of the teaching-learning process and identify areas of weakness.
- b. This feedback provides faculty members with a comprehensive understanding of how students are learning and participating in the teaching-learning process.
- c. The analysis also highlights any perception gaps, comparing the self-reflection of teachers with the feedback obtained from students, thereby helping teachers identify blind spots and work towards self-improvement.
- d. The feedback has resulted in faculty members adopting more effective practices, leading to increased student engagement in the learning process and the achievement of desired outcomes.

B. Record of corrective measures taken (5)

Institute Marks

5.00

8.2.2 Corrective Actions:

a. Faculty members also maintain a record of corrective actions taken in the current course file, which serves as a reference for future improvements.

8.2.3 Rewards:

a. In recognition of specific activities aimed at enhancing the teaching-learning process, faculty and staff members are acknowledged and felicitated as an expression of appreciation.

b. Assessment is conducted through the collection of student feedback, analysis, and implementation of corrective actions and subject result.



Image 8.2.3.1 Felicitation as an expression of appreciation



॥ पढमं ज्ञानं ततो दया ॥
Shri Jain Vidya Prasarak Mandal's
RASIKLAL M. DHARIWAL INSTITUTE OF TECHNOLOGY
Guru Fattechand Bhavan, Shri Fattechand Marg, Pavananagar, Chinchwad, Pune - 411033.
Tel.: 020-27353516



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AICTE Approval No.: 740-89-009 (NDIP) / ET / 2000
Govt. Approval No.: PTI 202K / (479/01) TE - 2

Ref. No.: SJVPM/RMDIOT/
2022-23/1987B

Appreciation letter Date : 05/09/2022

To,
Mr. S. B. Khadke
Lecturer in Computer Dept,
Rasiklal. M. Dhariwal
Institute of Technology,
Chinchwad, Pune.

Subject: Appreciation letter for remarkable teaching

Honorable Sir,

We extend our heartfelt appreciation for your remarkable teaching. Your engaging style, expert knowledge, and approachability have had a positive impact on our students' learning experiences. The feedback we received was overwhelmingly positive, highlighting your dedication and innovative techniques. Your commitment to nurturing students' growth is commendable, and we are honored to have you as part of our esteemed faculty. Thank you for shaping future leaders and fostering a love for learning. Your influence will undoubtedly leave a lasting impression on their lives.

Principal



RASIKLAL M. DHARIWAL
INSTITUTE OF TECHNOLOGY



INSTITUTE OF TECHNOLOGY
Chinchwad, Pune-411 033.

Image 8.2.3.2 appreciation Letter format

8.3 Feedback on facilities (5)

Total Marks 5.00

A. Student feedback on facilities, analysis and corrective action taken (5)

1. Availability:

The institute possesses sufficient infrastructure to meet academic, administrative, and other requirements in accordance with the norms set by AICTE. This includes facilities for conducting lectures, practical, tutorials, library services, washrooms, and a canteen, as depicted in table 8.3.2.1.

A feedback form has been developed to gather the perspectives of stakeholders and identify areas for further improvement. Initially, feedback is obtained from students on various parameters, which are quantified as illustrated in Table 8.3.2.1. Feedback regarding facilities is collected from students admitted in 2023, utilizing available technology in the form of a Google form. This encompasses twenty parameters, as listed below. Previously, only a few parameters were taken into consideration. The new Google form is now employed across the institute for all programs and branches. Table 8.3.2.1 presents a sample of the data received through the feedback form.

Table 8.3.2.1 Feedback for Institute facility from 2023 students of all branches in the institute

Sr. No	Questions	Remarks					Total
		Excellent	Good	Average	Satisfactory	Need to Improve	
1	Physical infrastructure of the Institute Library	33	57	33	11	17	151
2	Collection of books, journals and reading material of the Institute Library	41	56	27	8	19	151
3	Support and assistance of the Library Staff	47	48	27	19	10	151
4	Amenities and Assistance provided at the Institute sports ground	24	34	29	6	58	151
5	Support and assistance of the Institute Office Staff	57	42	26	6	20	151
6	Canteen facilities	11	34	19	4	83	151
7	Co-Operative store facility	33	43	27	17	31	151
8	Internet facility	38	40	26	9	38	151
9	Wi-Fi facility	31	36	26	12	46	151
10	Institute Website	46	49	28	17	11	151
11	Classroom & laboratory Infrastructure	34	47	40	13	17	151
12	Support of Technical Staff	62	48	26	7	8	151
13	Girls Common Room (only for female students)	29	48	21	8	45	151
14	Drinking water facility	33	46	34	9	29	151
15	Washroom cleanliness and maintenance	36	48	24	7	36	151
16	Greenery in the Institute campus	55	42	31	6	17	151
17	Cleanliness and maintenance of Institute premises	47	58	23	7	16	151
18	Student Hostel facility	18	49	25	12	47	151
19	Parking facility	46	62	21	7	15	151

20 Security Services

47

50

31

9

14

151

The analysis of above table is done and chart is plotted as below.

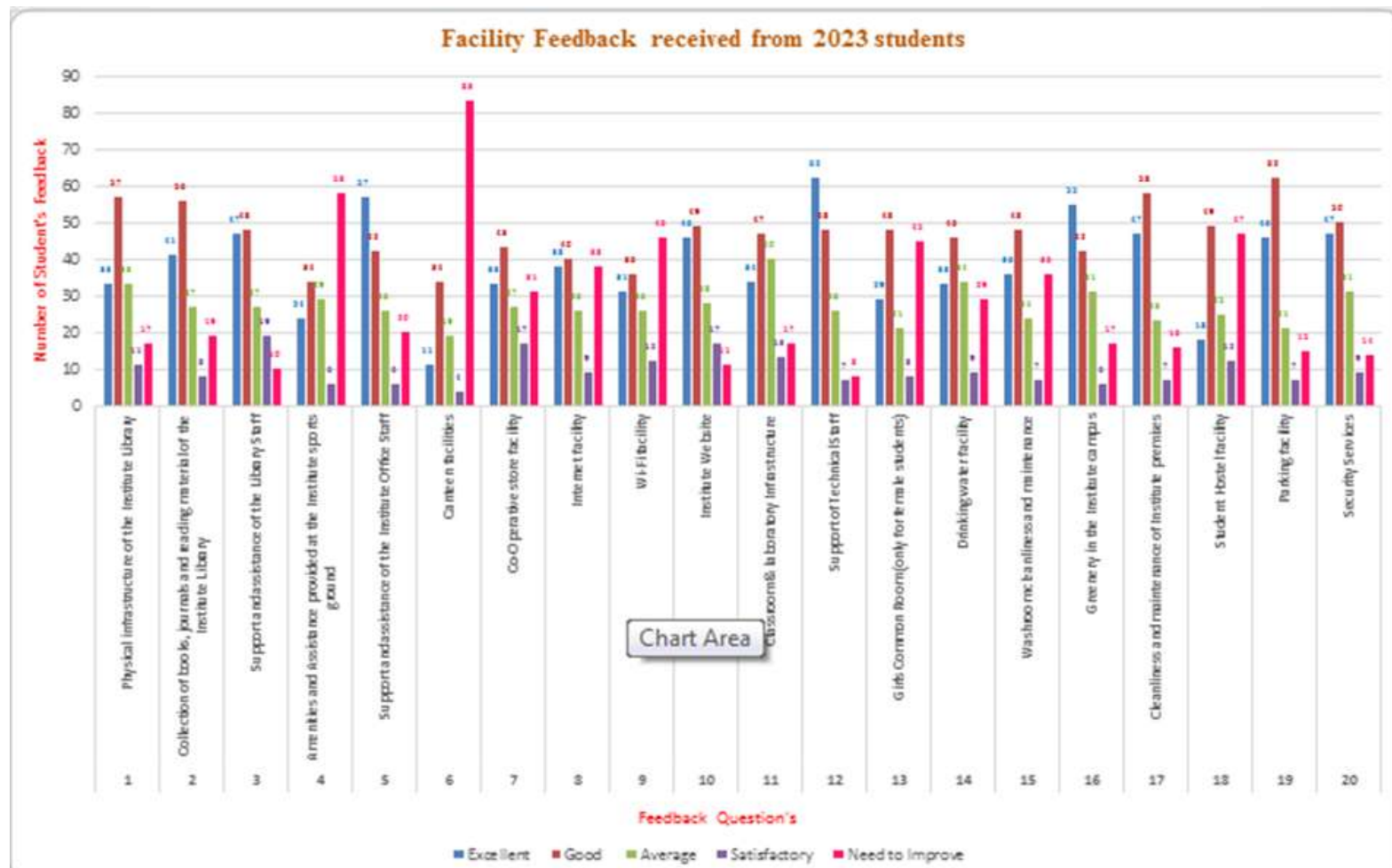


Image 8.3.2 Facility Feedback received from 2023 students in google form

1. Corrective Actions Taken:

After analyzing the Feedback of the responses received, it seems majority of students were satisfied with facilities. Some suggestions were received from students for improvements and those are resolved by taking corrective actions by respective higher authority and committee. In 2020-21 feedback about facilities from regular students was not taken due to pandemic situation. In pandemic situation teachers undertook Online Teaching Process so that the students attended lectures/Practicals/Tutorials Online.

8.4.1.1 Availability:

Carrier guidance cell is established in the institute to help the students acquire the knowledge, information, skills and experience. It helps to identify career options, and narrow them down to make one career decision. This Career decision then results in their social, financial and emotional well-being throughout.

- Institute organize expert lecture on Career Guidance and various Co-curricular topics, conduct industry visit, Industry related projects and Co-curricular activities for carrier guidance.
- Institute provides industry visit to students to give them practical knowledge of their core subjects and also they can learn how industry works, what is needed in industry. This helps students in their entrepreneurial spirit.
- Industry related projects are the best platform for students to put forth practical knowledge and skills.
- Institute always encourage students for Co-curricular activities to enhance the subject knowledge. Student's present research paper, gives PPT presentation, participates in project making competition and develops presentation skills.

Management:**8.4.1.1 Details of year wise carrier guidance lectures**

Sr.No.	Activity	Branch	Year		
			2020-21	2021-22	2022-23
1	Career Guidance Lectures(guest lecture)	CO	02 (online)	07	10
2	Industry visits	CO	02 (online)	08	07
3	Industry related projects	CO	02 (online)	02	02
4	Co-curricular activities (paper, poster ,PPT presentation, Project making competition, essay writing, quiz, Infosys Springboard, NPTEL)	CO	06 (online)	07	08
5	Extra-curricular(Green Club, NSS, annual day function, sports, old age and orphanage visit, marathon)	CO	02 (online)	05	07

Effectiveness:

The summarized details of these curricular and extracurricular activities are presented below:

For AICTE Diploma Courses

With Effect From 2017-18

D-8

Maharashtra State Board of Technical Education

Rasiklal M. Dhariwal Institute of Technology (Inst. Code 0363)

DETAILS OF EXPERT LECTURES

Academic Year:2021-2022

Program:- Engineering & Technology (Diploma)

Sr.No	Name of Expert & Contact Details	Topic	Course code & Co's nos	Semester	Name of Co-ordinator	Date of conduction of activity	No. of Beneficiaries	Relvance to PO's & PEO's
1.	Mr. Shiv Sharma Operation Head Jeking Learning Center Chinchwad Pune	Career in IT Industries & Cloud Computing	22620 1,2	VI	Mrs. N.R. Dangi	17/03/2022	61	PEO:-1 PO:-8,9,7
2.	Mr. Amol S. Patil Diamond Mindglance Akurdi, Pune <i>Conducted by Mrs. Greeta Kalia</i>	Project Guidance & Emerging Technologies	22618 1,2	IV	Mrs. N.R. Dangi	19/03/2022	60	PEO:-1 PO:-5,8,9,7
3.	Mr. Saurabh Rawat CEo & Co-Founder I-Medita Learning Solution Ltd	Networking	22316,22318 1,2,5	IV	Mrs. P.S. Kardile	34/03/2022	61	PEO:-2 PO:-5,6,9.
4	Mr. Mitul Bijalani Mindbrains Technology Waked, Pune	Digital Marketing UI/UX	22032 1,3	IV, VI	Mr. A.M. Dhepe	22/04/2022	120	PEO:-1,2 PO:-5,8, 7

Name & Signature of Academic Co-ordinator

(Mrs. Haghmele S.V.)

Name & Signature of HOD

Mrs. A.A. Deshpande

8.4.1.2 Expert lectures conducted at the institute 2021-22



8.4.1.3 Guest Lecture by Mr.Shiv Sharma Jetking Learning Center 2021-22



8.4.1.4 Lecture on personality development by Nupur jain 2021-22



8.4.1.5 Lecture on personality development by Nupur jain 2021-22



8.4.1.6 Industry Visit of SYCO at Dimond Mindglance Akurdi 2021-22



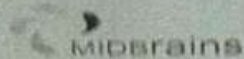
8.4.1.7 Industry Visit of TYCO at MEDITA BANER 2021-22



8.4.1.8 Poster presentation competition on Science day 2021-22



8.4.1.9 Prize distribution of Tech Mania 2022 by hands Principal and HOD



MIDBRAINS

TECHNOLOGIES

Date: 29/03/2022

LETTER OF SPONSORSHIP

To whom so it may Concern

Official sponsorship for student

1. Leena Chaudhari
2. Pratiksha Bagmar
3. Raj Joshi
4. Sneha Tupe

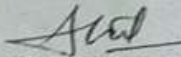
We confirm that above college student of "Rasiklal M. Dhariwal Institute of Technology", Chinchwad, Pune completed the Project title "Face Mask Detection" in python technology during 25/08/21 to 28/03/2022.

We would like to arrange sponsorship for the student effort during the project period during the tenure of Project Planning and Training. We found the students Sincere and regular while working in Project.

I would like to thank the students of Raskilal M. Dhariwal Institute of Technology, Chinchwad, Pune.

We wish the best for their future endeavors.




MidBrains Technologies
Mr. Atul Pandey
HR

Office: 2nd Floor Uttam Shanti Building, above Yamaha Showroom near Pandit Petrol Pump, Dange Chowk, Hinjawadi Road, Pune Maharashtra-411033.

Mo: +91-9372636965 Email: info@midbrains.in

8.4.1.10 industry sponsor project letter 2021-22

8.4.2.1 Availability

In-plant training of six weeks duration is mandatory to students. It is offered to all the eligible students in the summer vacation between second year and third year. The numbers of students who have undertaken in plant training arranged are as follows.

Management :

Table 8.4.2.1 year wise in plant training details

Sr. No.	Year	Branch	Name of company	Students Attended	Mentor
1	2020-21	CO	SGMS Akurdi	15	Mrs.N.R.Dangi
			SGMS Akurdi	09	Mr.AM.Dhepe
			Midbrains Technology	15	Mr.Khadke S.B.
2	2021-22	CO	SGMS	24	Mrs.Dangi N.R. & Mr.AM.Dhepe
			Midbrains Technology	36	Mr.Khadke S.B.,Mrs.Kardile P.S.& Mr.AM.Dhepe
3	2022-23	CO	SGMS	17	Mr.AM.Dhepe
			Midbrains Technology	24	Mrs.Dangi N.R. & Mrs.Kardile
			Comshiksha	25	Mr.Khadke S.B & Mrs. Wani H.G.

C) Effectiveness

In plant training gives a great amount of source for students to work in industry in the future. The trainees acquire the skill by observing, assisting and learning the job in the plant itself. It is very effectively provides following skills:

- Get tangible work experience.
- Get a perception of your chosen field.
- Start networking.
- Helps you to choose a specialism.
- Benefits you to become more self-confident.
- Boosts your CV.
- Increases your market value.

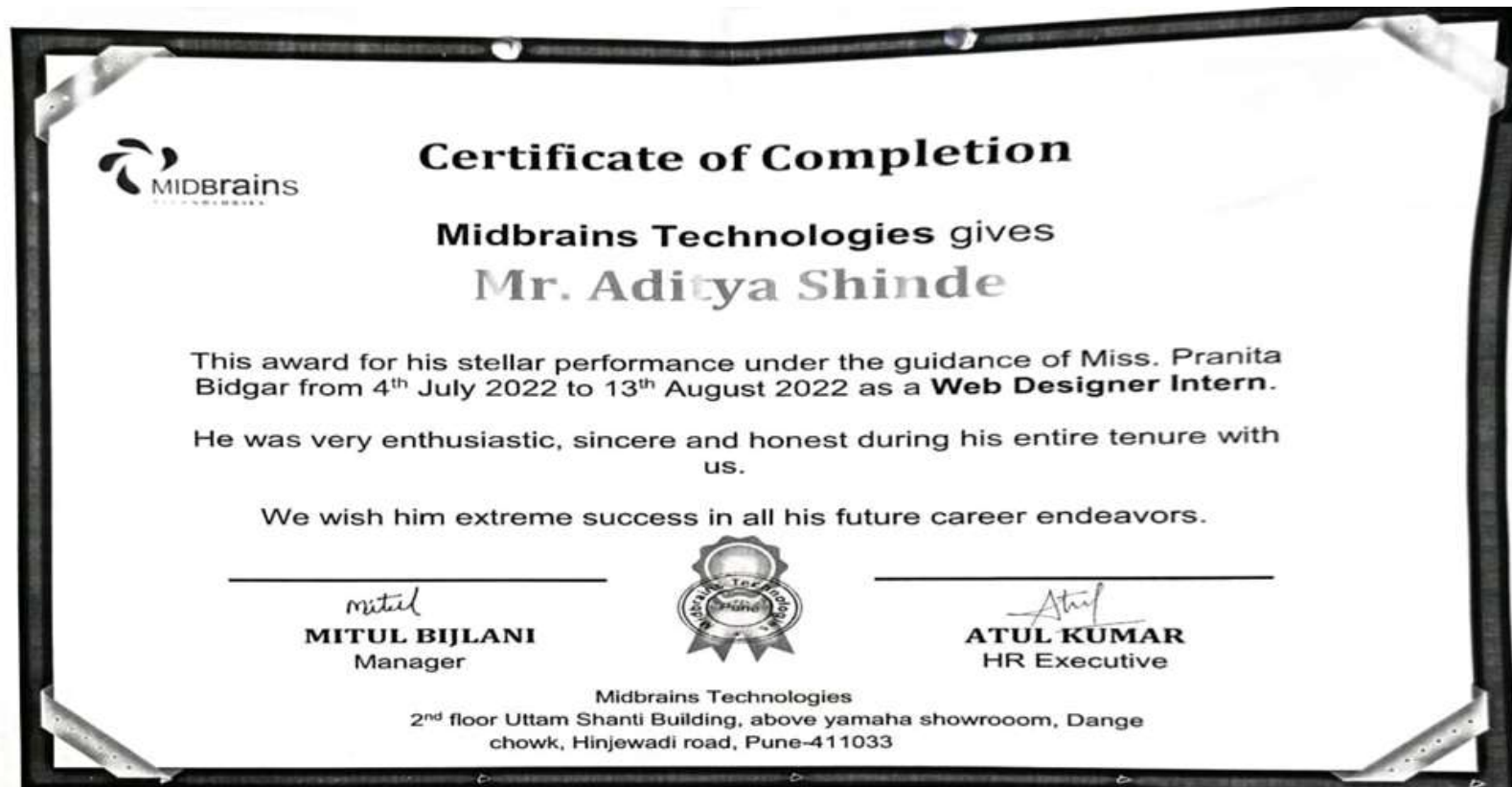


Image 8.4.2.2 in plant training certificate

8.4.3 Placement:**8.4.3.1 Training and Placement Cell - Organizational Structure Availability :**

Training and placement Cell is established in the institute. Organizational structure of the cell is as follow:

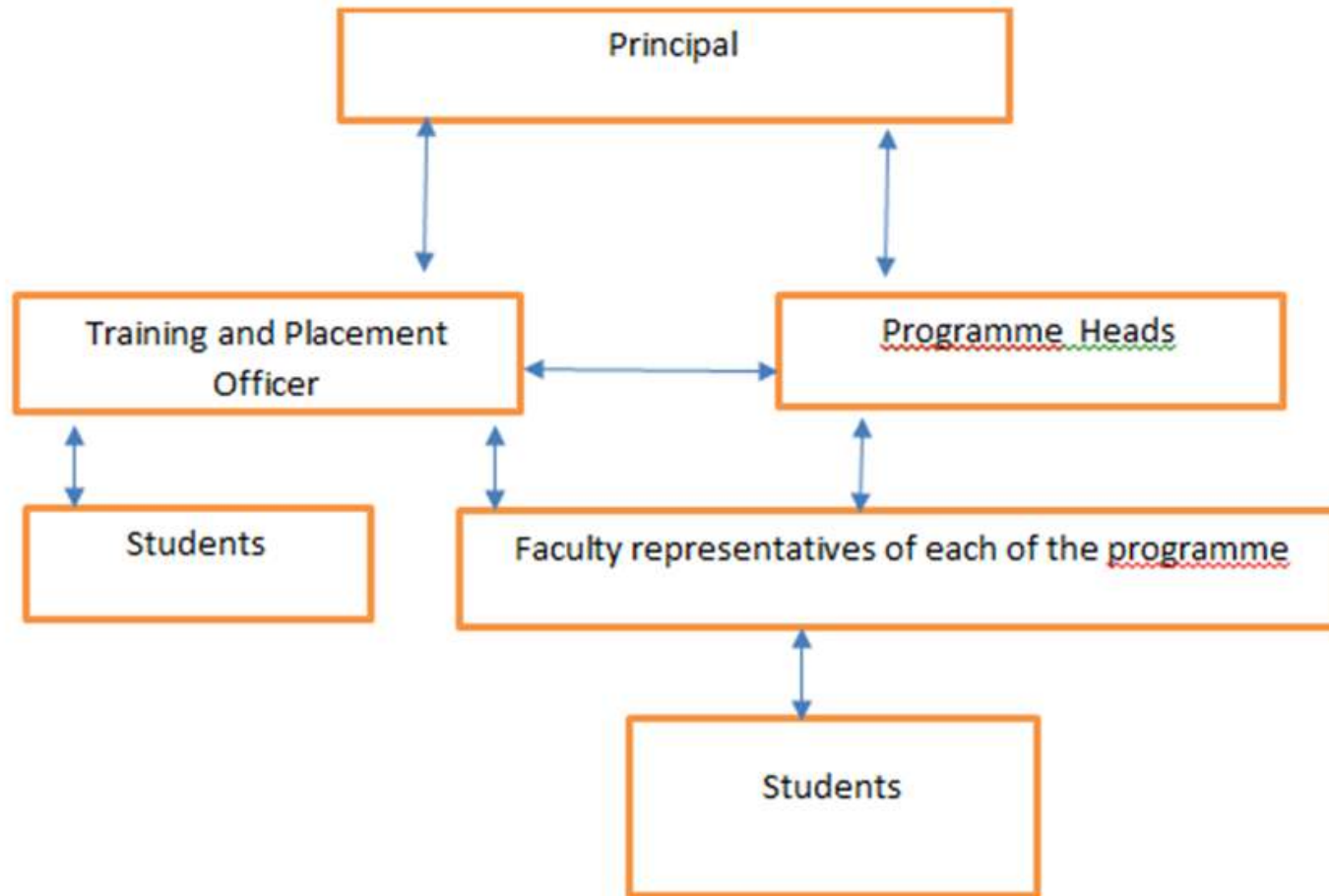


Image 8.4.3.1 organizational structure of the training and placement cell

8.4.3.2 Training and Placement Cell – Working/ Management :

- Training and placement officer (TPO) reports to the Principal of the institute. The TPO coordinates the placement of the final year students with the help of the Departmental Coordinators.
- For the awareness of the students the awareness meetings are arranged and the students are counseled regarding the career options.
- General procedure followed for placement of final year students is as below.
 - The industries are invited for the conduction of placement drive in the institute or a few industries approach the placement cell.
 - The job profile and eligibility criteria received from the industries are communicated to the students of the concerned department through departmental coordinators.
 - The data of eligible and interested students is shared with the industries.

- The industries conduct pre-placement talk, aptitude test, group discussions and personal interviews. From March 2020 onwards all these processes are conducted online due to pandemic situation.

- The selected students are informed regarding selection.

1.Placement of Immediate Previous Batch Pass out Students:

The TPO cell also supports the industries for the placement of the immediate previous batch pass out students by communicating the details received from the industries to the willing alumni of immediate previous batch students.

2.Support to the departments for various activities related to industries:

The TPO cell supports to the departments to arrange various activities related to industries such as industrial visits, expert lectures and in-Plant training by sharing the information of the industries and the experts with the departments.

The faculty members working in TPO Cell for current year (2022-23), current year-1(2021-22), Current year-2(2020-21) is as below:

Training and Placeme

Name	Designation
Mr. Momin M.M.	TPO

Departmental Coordinators

Sr. No.	Year	Name of Department	Name of departmental coordinator	Designation
1	2020-21	CO	Mr.AM.Dhepe	Lecturer
2	2021-22	CO	Mr.AM.Dhepe	Lecturer
3	2022-23	CO	Mr.AM.Dhepe	Lecturer



Image 8.4.3.3 campus interview

Effectiveness :

Table 8.4.3.1 Placement Record from 2020-21 to 2022-23

Computer Department	Total number of students in the final year	Pass students in the final year	Total number of student self-employed in the final year	Total number of students campus placement in the final year	Total number of students pursue for higher education	Total number of students Searching for job	Total number of students failed
2020-21	63	63	00	04	51	08	00
2021-22	61	34	00	08	18	08	27
2022-23	34	24	00	00	12	12	10
Total	158	121	00	12	81	28	37

धारीवाल इन्स्टिट्यूटच्या ३२ विद्यार्थ्यांना नोकरीची संधी

पिंपरी, दि. २२ (प्रतिनिधी) - श्री जैन विद्या प्रसारक मंडळ संचालित चिंचवड येथील रसिकलाल एम. धारिवाल इन्स्टिट्यूट ऑफ टेक्नॉलॉजी मधील ट्रेनिंग आणि प्लेसमेंट सेलने नोकरी मेळावा आयोजित केला होता. त्यात पॉलिटिक्निक्च्या ३२ विद्यार्थ्यांना नामांकित कंपन्यांमध्ये नोकरीची संधी मिळाली आहे.

या वेळी २०२०-२१ या शैक्षणिक वर्षातील पॉलिटिक्निक्च्या अंतिम वर्षातील ३२ विद्यार्थ्यांची निवड करण्यात आली आहे. आकुर्डीतील बजाज ऑटो लिमिटेड, मदरसन इंडिया-चाकण, स्पार्क मिंडा-चाकण, यझाकी इंडिया, अॅथेरोन एरोस्पेस आदी कंपन्यांमधील प्रतिनिधींनी विद्यार्थ्यांच्या मुलाखती घेऊन निवड केली. निवड झालेल्या विद्यार्थ्यांचे अभिनंदन केले.



Image 8.4.3.4 Newspaper Article

NETWARE INFOTECH

Sales, Services & Repairing Sector 4, Moshi Pradhikaran, Pune.
E-mail: netwareinfotech@gmail.com, Mo no-8857919594

BHOSARI/II/46903: Netware InfoTech/Computer/0223

Date:- 21/07/2022

Candidate Full Name: Mr. PAWAR NIRANJAN KISHOR

Address:- Pandurang Kalbhor P.C.M.C. Hospital near Akurdi

Subject: Job Offer

Dear Mr. PAWAR NIRANJAN KISHOR

Netware InfoTech is excited to bring you on board as a software trainee. We're just a few formalities away from getting down to work. Please take the time to review our offer. It includes important details about your compensation, benefits and the terms and conditions of your anticipated employment with Netware InfoTech

Netware InfoTech is offering a full time, position for you as a software trainee, reporting to immediate manager/supervisor Mrs Monali Nemade. starting on 30/07/2022 at Bhosari location. Expected hours of work are 5 days of week and 9 hours of work. In this position, Netware InfoTech is offering to start you at a pay rate of Rs.1,95,6900/ CTC.

As part of your compensation, we're also offering Business Travel allowance and reimbursements as per company policy.

As an employee of Netware InfoTech you will be eligible for such as health insurance, stock plan, dental insurance, etc.

Please indicate your agreement with these terms and accept this offer by signing and dating this agreement on or before 30/07/2022.

Sincerely,

For

Netware InfoTech



Image 8.4.3.5 job offer letter by Netware InfoTech 2022

8.5 Entrepreneurship Cell/Technology Business Incubator (5)

Total Marks 5.00

8.5.1 Availability

The entrepreneurship development is one of the important needs in the context of growing opportunities in the world. The Institute always concern about to develop entrepreneurial spirit in the students to be able to grab that growing market and make their identities. Therefore Institute established an Entrepreneurship Development Cell (EDC) to develop significant percentage of students towards technocrat entrepreneurs who will play a vital role for generation of wealth and employment to our country.

1. Management

The EDC's mission is to help students to develop their entrepreneurial skills through the following programs:

- Entrepreneurship awareness camp (EAC)
- workshops
- Guest lectures
- seminars
- skill development
- Industry Visit

For AICTE Diploma Courses With Effect From 2017-18 **D-8**

Maharashtra State Board of Technical Education
Rasiklal M. Dhariwal Institute of Technology (Inst. Code 0363)
DETAILS OF EXPERT LECTURES(personality Development & EDP)

Academic Year:2021-2022
Program:- Engineering & Technology (Diploma)

Sr.No	Name of Expert & Contact Details	Topic	Course code & Co's nos	Semester	Name of Co-ordinator	Date of conduction of activity	No. of Beneficiaries	Relvance to PO's & PEO's
1	Mr. Arvind wadkar Retd. Spaco Manager	Personality Development	22032 1,3	VI	Mrs. A. A. Deshpande	10/03/2022	60	PEO:-1 PO:- 5,8,9,7
2	Ms. Nupur Jain Vishwakarma Publicaion,Pune	Personality Development	22032 1,3	II	Mrs. Patil V. M. Mrs. Mundhe S.S. Mrs. Kulkarni C.S. Mrs. Salaskar K.P.	26/03/2022	100	PEO:-1,2 PO:-5,8, ,7

Sr.No	Name of Expert & Contact Details	Topic	Course code & Co's nos	Semester	Name of Co-ordinator	Date of conduction of activity	No. of Beneficiaries	Relvance to PO's & PEO's
1	Mr. Rushikesh Rajurkar Founder & Director The Executive ,World Trade Center Kharradi Pune	Enterpreneurship Development Program	22032 1,3	VI	Mrs. A. A. Deshpande	16/03/2022	60	PEO:-1,2 PO:-5,8, ,7

Name & Signature of Academic Co-ordinator *(M.S. Waghmare S.V.)*

Name & Signature of HOD *(A.A. Deshpande)*

Image 8.5.1 EDP cell expert Lecture

1. Effectiveness

Many students get inspired from EDC cell. Guest lecture conducted by EDC help students to develop and enhance their skills. It has impacted on students to be entrepreneur in the future. Entrepreneurship awareness program open up scope to the students. As students are even more concerns regarding detailed knowledge of their interested area and also to earn some start up cash for entrepreneurship. Student chooses to pursue higher education before entering entrepreneurship.

9.1 Organization, Governance and Transparency (25)

Total Marks 25.00

9.1.1 State the Vision and Mission of the Institute (5)

Institute Marks

5.00

Vision :

A lead provider of quality and affordable technical education to serve the Society

Mission :

M1: To Develop the ideal working attitude and values of the students. M2: To maintain the quality of Teaching learning Process M3: To bridge the gap between industry and institute. M4: To enhance the multidisciplinary skills of the faculty and students.

9.1.2 Governing body, administrative setup, functions of various bodies, define rules procedures, recruitment and promotional policies (5)

Institute Marks

5.00

9.1.2. Governing body, administrative setup, functions of various bodies, **define rules procedures, recruitment and promotional policies**

A) List the Governing Body Composition, their memberships, functions and responsibilities

9.1.2.1 The Governing Body is constituted as per the guidelines of AICTE, New Delhi. Governance is a fundamental process that links the management and personnel to the various stakeholders, such as students, parents, recruitment staff and the wider community. To ensure its effectiveness and efficiency, a variety of administrative, educational, co-educational and general entities have been established with their respective roles and responsibilities.

Present Governing Body Members :

Sr. No.	Name of committee member	Designation
1	Mr. Prakashji Rasiklalji Dhariwal (President, of S.J.V.P.M. Trust)	Chairman
2	Mr. Shantilalji Ratanchandaji Lunkad (Chairman of S.J.V.P.M. Trust)	Member
3	Adv. Rajendrakumarji Shankarlalji Mutha (Hon. General Secretary S.J.V.P.M. Trust))	Member
4	Mr. Prakashchandji Zumbarlaji Chopada (Treasurer of S.J.V.P.M. Trust)	Industrialist
5	Mr. Mr. Anilkumarji Motilalji Kankaria (Joint Secret. of S.J.V.P.M. Trust)	Member
6	Mr. Rajeshkumarji Noupatlalji Sakala (Joint Secret. of S.J.V.P.M. Trust)	Member
7	Mr. Walchandaji Sancheti (Educationist & Hon. Ex officer)	Educationist
8	AICTE Representative (WRO AICTE Mumbai)	Member Secretary
9	DTE Representative (Joint Director DTE Regional Office Pune)	Member Secretary
10	MSBTE Representative (Deputy Secretary MSBTE Regional Office Pune)	Member Secretary
11	Mr. A.B.Thite (Principal, Rasiklal M. Dhariwal Inst. Of Tech., Chinchwad)	Member Secretary

12	Mrs. A.A.Deshpande (HOD Computer Department)	Faculty Member
13	Mrs. S.V.Waghmare (Academic Co-ordinator)	Faculty Membe

Functions and responsibilities of Governing Body-

- 1) The Governing Body is the Supreme body responsible for the management of the Institution.
- 2) To consider the recommendation of sub-committee in respect of Infrastructure, Equipment's, Library resources, Staff and Finance for the Academic year. The sub- committee includes Heads and In-charges of Departments, Office and Library on a continuous basis
- 3) To approve the proposed Recurring and Nonrecurring Budget estimates of various departments and other sections
- 4) To scrutinize and accept Audited statement of account of each year
- 5) To approve the Teaching and Non-teaching staff posts as per the Institution load requirements
- 6) To consider and make provisions for meeting the General and Specific conditions laid down by AICTE, State Government, DTE, MSBTE, NBA and monitor the progress in fulfilling the conditions
- 7) To consider the report of the Principal on the status of Admissions
- 8) To consider the report and the proposals of the Principal on Academic performance of the staff and students. Recommend necessary remedial measures if needed
- 9) To approve proposals of the Principal to enhance academic atmosphere in the Institution
- 10) To consider proposals for expansion of educational activities to be made to AICTE, DTE, MSBTE such as change of Course, increase/decrease in intake capacity
- 11) Any other important policies and decisions in the future interest of the Institution.

The Governing Board meets once every year, when the Director gives an update on academic performance, activities, and achievements of faculty and students during the previous half-year. These meetings are a place for discussion and reflection, leading to decisions on policy changes, budgeting, and other matters that need attention for the following half-year.

B. Minutes of Meetings and action taken reports-

Sr.No.	Meeting	Date
1	Meeting 1 (A.Y.2021-22)	23/06/2021
2	Meeting 2 (A.Y.2022-23)	06/07/2022

Sr. No.	Date of meeting	Main points discussed	Action taken
1.	23/06/2021 (Google meet)	<ol style="list-style-type: none"> 1. Read and approved the MOM of last meeting. 2. Discussion on academic admission 2021-22. 3. Discussion on admission strategies for FY and DSY 4. Discussion on to start artificial intelligence course in the institute and increase computer engineering admission strength from 60 to 90 with MSBTE approval. 5. Approval for faculty recruitment against vacancy created at various departments. 6. Discussion on conduction of different co-curricular activities in the institute.(guest lecture, industrial training) 7. Review and discussion on institute's vision mission statement. 8. Discussion on formation of different committees as per DTE, MSBTE and AICTE norms. 9. Discussion on many other abrupt topics. 10. Approval for the modification of the infrastructure 11. Resolution on encouragement to industry institute interactions to enrich teaching learning process. 12. Review on placement activities 13. Review of funds utilization against approved budget 	Discussed Agenda of meeting, Suggestions accepted from the members of body, Action taken and Approved unanimously

2.	06/07/2022 Offline	<ol style="list-style-type: none"> 1. Read and approved the MOM of last meeting. 2. Discussion on academic admission 2021-22. 3. Discussion on admission strategies for FY and DSU 4. To make Computer lab for Artificial Intelligence and Computer Engineering students 5. Approval for faculty recruitment against vacancy created at various departments. 6. Discussion on conduction of different co-curricular activities in the institute.(guest lecture, industrial training) 7. Discussion on NBA accreditation 8. Review and discussion on institute's vision mission statement. 9. Discussion on formation /change of different committees as per DTE, MSBTE and AICTE norms. 10. Discussion on to provide bilingual notes to students 11. Approval for the modification of the infrastructure 12. Review on placement activities 13. Review of funds utilization against approved budget 	Discussed Agenda of meeting, Suggestions accepted from the members of body, Action taken and Approved unanimously
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9.1.2.2 Administrative Setup

Organizational Structure of administrative setup is as follows:

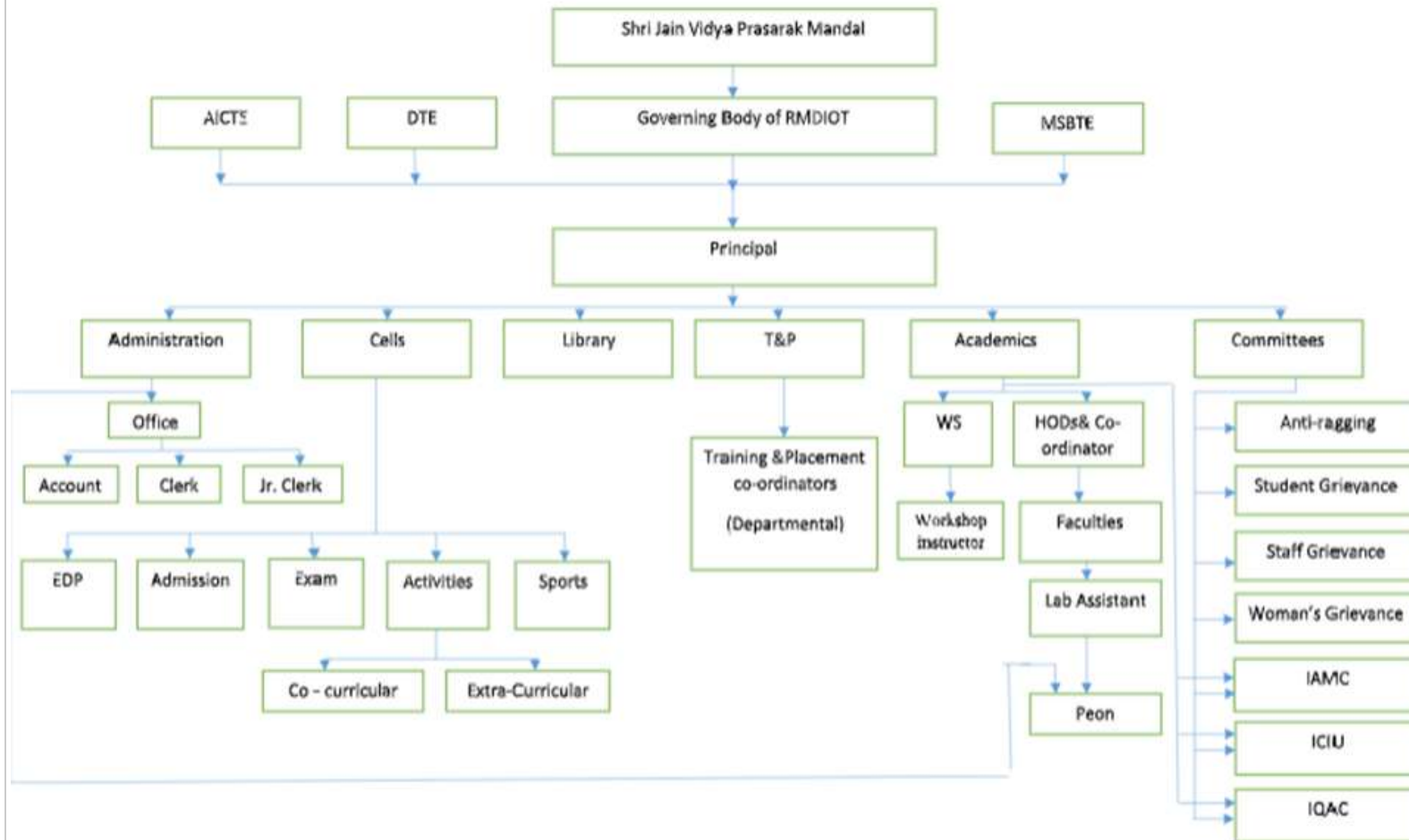


Image 9.1.2.2.1 Organizational Structure of administrative setup

No. of Administrative bodies are present at institute mentioned below

Sr.No.	Administrative bodies	Frequency of Meeting
A.	General Administration and Accounts	Once in a year
B.	Admission Cell	Once in a year

C.	Examination Cell	Twice in a year
D.	Academic Cell a. ICIU b. IAMC c. IQAC	Twice in a year
E.	Co-Curricular Committee	Once in a year
F.	Extra-Curricular Committee	Once in a year
G.	Sports cell	Once in a year

9.1.2.3 Functions of various Bodies -

A. General Administration and Accounts

1. Maintaining the details of staff members and Service Records
2. Attendance management
3. Students Data Management and related services
4. Students Fees collection and other receipts
5. Accounts management, Payroll, Statutory deductions and compliance
6. The frequency of meeting is once in an academic year.

Table 9.1.2.3.1 **General Administration and Accounts** Committee

Sr. No.	General Administration and Accounts Committee	Designation
1	Pro. A.B.Thite (Principal)	Chief Officer In charge
2	Mr. P.P. Purandare	Member
3.	Mr.P.P. Zore	Member

B)Admission Cell : First Year and Direct Second Year -

Stage 1

- Counselling sessions at various Schools for SSC appearing students.
- Arranging competitions for School students & arranging visit to Polytechnic facilities.
- Provide Guidance about the Centralized Admission Process of State Government.

- Provide the List of Essential documents to be kept ready for Admission Application registration.

Stage 2

- Facilitation Centre for online admission activities.
- Provide guidance & help for submitting Online Admission forms to candidates.
- Help to update details during Grievance Redressal period.
- Help Candidates to select Institute names and Course Options during CAP Rounds.
- Guidance to Students/Parents about Course details and Future prospects.
- Counseling the admission allotted students for document submission and payment of fees.
- Direct the students for Academic and Co-curricular activities.

Stage 3

- Upload admitted student's data on DTE/ MSBTE.
- Keep Documentation ready for Merit List verification.
- Complete the Document Verification and Merit List Approval as per DTE RO notified Schedule.

Table 9.1.2.3.2 Admission cell Committee

Sr.No.	Name	Designation
1	Pro. A.B.Thite (Principal)	Chairman
2	Mrs. A.A.Deshpande (HOD ,Computer Dept.)	FC In charge
3.	Mr.S.B.Khadke (Lecturer , Computer Dept.)	Co-Ordinator
4.	Mr.A.A.Jain (Lecturer , Mechanical Dept.)	Co-Ordinator
5.	Mr. S. Kharchane (Lecturer , Automobile Dept.)	Member
6	Ms.K.P.Solaskar (Lecturer Basic ScienceDept.)	Member
7.	Mr. R.P.Patil (Lab Assistant)	Member
8.	Mr.K.S.Lokhande (Workshop Insturctor)	Member

C)Examination Cell-

The functions include:-

1. The functions include
 1. MSBTE Enrollment of newly admitted students. Smooth conduct of all External Exams.
 2. Certificate Of Backlog (COB) of Direct Second Year (DSY) / Transfer Candidates.
 3. Examination related guidelines are forwarded to concerned staff and students from time to time.

4. Maintain details of Learning Disability (LD) students for awarding applicable concessions as per MSBTE norms.
5. Record Keeping and Safety of Exam stationary and other related Inventory.
6. Exam form filling of Regular and Ex-students.
7. MSBTE Exam Result Analysis. Result Records.
8. List of Staff with 100% results in summer and Winter Theory Examinations.
9. Intimation to staff about Result Statistics and conduct of remedial sessions in case of Poor results
10. The frequency of meeting is twice in an academic year.

Table 9.1.2.3.3 Examination cell Committee

Sr.No.	Name	Designation
1	Pro. A.B.Thite (Principal)	Chief Officer In charge
2	Mr. S.B.Survase (HOD ,Mechanical Dept.)	Vigilance Squad
3.	Mr.A.A.Jain (Lecturer , Mechanical Dept.)	Officer In charge
4.	Mr.M.A.Sawardekar(Lecturer , Mechanical Dept.)	Billing Supervisor
5.	Mr.P.G.Nemade (System Analyst)	Online cleark
6.	Mr. R.P.Patil (Lab Assistant)	Online cleark
7.	Mr.K.S.Lokhande (Workshop Insturctor)	Sealing Supervisor
8.	Mr.J.P.Dhere (Peon)	Control Room Peon

D)Academic Cell -

1. Preparation of Prospectus, Student Hand Book.
2. Preparation of Annual Academic Time table.
3. Schedule co-curricular activities, Guest lectures, Industrial visits, Seminars.
4. Internal Academic Monitoring, Unit Test, preparation for External Academic Monitoring, Students counseling, Industrial projects etc
5. The frequency of meeting is twice in an academic year.
6. Academic cell works through ICUC,IAMC,IQAC committee present at the organization are mentioned below:

a)Roles and Responsibilities of ICIU,

1. Study curriculum implementation process and prepare curriculum plan at institute level.
2. Identify the resource and curriculum gaps and develop plan to make up the deficiencies.
3. Plan for academic calendar of the institute taking into consideration the calendar from.
4. Guide to the departments regarding curriculum design and its implementation.
5. Ensure uniform implementation of MSBTE norms for student assessment.
6. Analyze the reports of internal and external academic monitoring committees and adopt remedial measures.
7. Maintain the records of all activities in the prescribed Pro-forma.
8. The frequency of meeting is twice in an academic year.

Table 9.1.2.3.4 Institute Level Curriculum Implementation unit (ICIU) Committee

Sr.No	Name	Designation
01	Mr.A.B.Thite(Principal)	Ex- Officio, Chairman
02	Mrs.A.A.Deshpande,(HOD Of Computer Dept. &NBA Co-ordinator)	Ex- Officio
03	Mrs.S.V.Waghmare,(Academic Co-ordinator)	Ex- Officio
04	Mr.S.B.Survase(HOD of Mechanical Dept.)	Ex- Officio
05	Mrs. A.A. Tikle (HOD Automobile Dept.)	Ex- Officio
06	Mr. Khadke S. B.(Lecturer, Computer Department)	Member of ICIU
07	Mrs. Nemade K. R.(Lecturer, EJ Department)	Member of ICIU
08	Mr. M. Momin(Training & Placement Officer)	Member of ICIU
09	Ms. Shruti Narkhede(Student Representative)	Member of ICIU
10	Mr.Sunil Pandey (Parent Representative)	Member of ICIU

b)Roles and Responsibilities of IAMC

1. Build up the academics in the institute by achieving learning outcomes, ensuring fulfillment of program outcomes.
2. Plan, develop and implement appropriate teaching, learning and assessment process.
3. Offer opportunities to the faculty members for enhancing their skills and experiences.
4. The frequency of meeting is twice in an academic year.

Table 9.1.2.3.5 Internal Academic Monitoring Committee (IAMC) Committee

Sr.No	Name	Designation
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01	Mr.A.B.Thite(Principal)	Chairman & Ex –Officio of IAMC
02	Mrs.A.A.Deshpande,(HOD Of Computer Dept. &NBA Co-ordinator)	Ex- Officio of IAMC
03	Mrs.S.V.Waghmare,(Academic Co-ordinator)	Ex- Officio of IAMC
04	Mr.S.B.Survase(HOD of Mechanical Dept.)	Ex- Officio of IAMC
05	Mrs. A.A. Tikle (HOD Automobile Dept.)	Ex- Officio of IAMC

c)Roles and Responsibilities of IQAC:

1. Ensuring timely, efficient, and progressive performance in academic, administrative, and financial tasks.
2. Maintaining the relevance and quality of academic and research programs.
3. Promoting equitable access to and affordability of academic programs for diverse sections of society.
4. The frequency of meeting is twice in an academic year.

Table 9.1.2.3.6 Internal Quality Assurance Cell (IQAC) Committee

Sr. No.	Name of committee member	Designation
1.	Mr.A.B.Thite (Principal)	Chairperson
2.	Mrs.A.A.Deshpande, (HOD Of Computer Dept.)	Member Secretary
3.	Mrs.S.V.Waghmare (Academic Co-ordinator)	Member
4.	Mrs. A.A. Tikle (HOD Automobile Dept.)	Member
5.	Mr.S.B.Survase (HOD of Mechanical Dept.)	Member
6.	Mrs.N.R.Dangi, (Lecturer in Computer Dept.)	Member
7.	Mr.M.M.Momin (Lecturer in Mechanical Dept.)	Member
8.	Mr. Omkar Patil (Alumini)	Member

9.	Ms.Sharvari Balsaraf (Alumini)	Member
10.	Mr.P.H.Lakal I(Industrialist)	Industry Member
11.	Mr. Ritesh R. Surange (Industrialist)	Industry Member
12.	Mr. P. P. Purandare (Administrative Staff)	Administrative Official Member

E)Co-Curricular Committee

The responsibilities of the Co-Curricular Committee include:

1. This cell organizes Technical event in the institute which has paper presentation, Mini project, and poster presentation competitions.
2. It also organizes different competition such as quiz competition, elocution competition on different occasions such as Engineer's day, Trust's vardhapan din etc.
3. The frequency of meeting is once in an academic year.

Table 9.1.2.3.7 Co-Curricular Committee

Sr.No.	Name	Designation
1	Pro. A.B.Thite (Principal)	Chairman
2	Mr. S.B.Survase (HOD ,Mechanical Dept.)	Secretary
3.	Mrs.N.R.Dangi (Lecturer Computer Dept.)	Member
4.	Mrs.S.G.Varpe (Lecturer , Mechanical Dept.)	Member
5.	Mr. S. Kharchane (Lecturer , Automobile Dept.)	Member
6	Mrs. S.B.Mane(Lecturer , Basic Science Dept.)	Member

7	Mr.P.G.Nemade (System Analyst)	Member
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F)Extra Curricular Committee

The responsibilities of the Extra-Curricular Committee include:

1. This cell organizes cultural events.
2. The activities include Singing, dancing, Mehndi competition, fun fair, Elocution, Rangoli, Traditional dress, Dandiya etc.
3. This cell also organizes different social activities during the year such as orphanage ,old age home visit and spending day with them.
4. Distribution of blankets to road side old aged people, distributing snacks to road side kids on the occasion of Children's Day
5. NSS activity which include "Swachata Mohim in a Village"
6. Under Green club tree plantation.

Table 9.1.2.3.8 **Extra-Curricular Committee**

Sr.No.	Name	Designation
1	Prof. A.B.Thite (Principal)	Chairman
2	Mrs.S.V.Waghmare (Academic co-ordinator)	Secretary
3	Mr.S.B.Khadke (Lecturer Computer Dept.)	Member
4	Mrs.K.R.Nemade (Lecturer , Automobile Dept.)	Member
5	Ms.S.S.Mundhe (Lecturer , Basic Science Dept.)	Member
6	Mrs. V.M.Patil (Lecturer , Basic Science Dept.)	Member
7	Mr.E.S.Shinde (Workshop Instructor)	Member

G) Sports cell

The responsibilities of the Sports Cell include:

1. This cell organizes different sports events of IDESSA D1 zone in institute include Kabaddi, Kho-Kho,Chess, Carom, wrestling etc.
2. Prepare teams for different sports event in other institute under IDESSA D1 zone

Table 9.1.2.3.9 **Sport Cell**

Sr.No.	Name	Designation
1	Prof. A.B.Thite (Principal)	Chairman
2	Mr.A.M.Dhepe (Lecturer Computer Dept.)	Secretary

3	Mr.S.S.Shinde (Lecturer , Automobile Dept.)	Member
4	Ms.M.M.Chavan (Lecturer , Basic Science Dept.)	Member
5	Mr. Nikam (Workshop Instructor)	Member
6	Mr.Mali (Peon)	Member

9.1.2.4 Service rules Procedure

C. The published service rules, policies and procedures with year of publication

RECRUITMENT POLICY

Recruitment policy and service rules are framed for the effective administration and smooth functioning of the institute w.e.f.17/05/2019.

Recruitment Policy

A. The Process of recruitment of faculties

Faculties are recruited as per AICTE Norms.

1. Before the commencement of each semester the requirement of teaching staff considering Student Teacher ratio is calculated as per the norms laid down by AICTE/DTE/MSBTE by the concerned Head of the Department and same is submitted to the management through the Principal.
2. As the institute comes under the Minority status Roaster scheme is not applicable to the institute.
3. The advertisement is published in leading newspapers as per the vacancies.
4. Applications are invited from Eligible candidates within the stipulated time.
5. After stipulated number of days, the received applications are sorted subject-wise, post wise and a summary is prepared.
6. Short listing of applications of eligible candidates is done by Head of the Department of Institute in consultation with Principal as per the norms of AICTE /DTE/MSBTE.
7. The selection panel comprises of Chairman, Principal, Head of the Department and subject experts.
8. After coordinating with Selection panel members the dates of interview are finalized.
9. The shortlisted candidates are intimated minimum 8 days in advance as per rules about the date, time and venue of interview by sending letters / email / telephone calls.
10. On the day of interview, original document verification is carried out before candidates attend the Interview.
11. Interview of Eligible candidates is carried out by Selection Panel. Based on their performance in interview faculties are called for demo lectures. After the demo lecture selection report is submitted to management.
12. Finally Appointment orders are issued by Shri Jain Vidya Prasarak Mandal to the selected candidates and they are given a time period of 15 days to one month for joining. However, candidate needs to communicate the acceptance of appointment within 7 days from the date of order of appointment. Failing of which it will be presumed that candidate is not interested in the offer and the appointment is treated as cancelled. No further communication is entertained in such regard after due date.

B. The Process of recruitment of faculties on ad-hoc

1. A situation may arise when there may be an immediate requirement of a faculty. In such situations, faculties are recruited on ad-hoc basis.

2. Few candidates are shortlisted from the bio-data received at department level or from reference of other faculties / HOD / Principal. Technical interviews are conducted at college level by an internal committee consisting of senior faculties, HOD and Principal. The selected candidates are recommended for further approval from management.
3. After the consent from management, the recruitment of candidate is done on purely temporary ad-hoc basis for one academic year only.

C. The Process of recruitment of Technical/Non-Teaching staff

1. The requirement and availability of technical and non-teaching staff is reviewed as and when required.
2. The advertisement is published in leading newspapers and applications are invited within the stipulated time.
3. After stipulated number of days, the received applications are sorted and a summary is prepared.
4. Short listing of applications of eligible candidates is done by Head of the Department of Institute in consultation with Principal as per the eligibility norms.
5. Selection Panel is formed by Principal and Chairman with subject expert and head of department.
6. The shortlisted candidates are intimated minimum 8 days in advance about the date, time and venue of interview by sending letters / email / telephone calls.
7. On the day of interview, original document verification is carried out before candidates attend the Interview.
8. Interview of eligible candidates is carried out by the Panel.
9. The reports of selection panel along with the required documents are submitted to Principal and Management.
10. Appointment orders are issued by Shri Jain Vidya Prasarak Mandal to the selected candidates and they are given a time period of 15 days to one month for joining. However, candidate needs to communicate the acceptance of appointment within 7 days from the date of order of appointment. Failing of which it will be presumed that candidate is not interested in the offer and the appointment is treated as cancelled. No further communication is entertained in such regard after due date.

• Leave Policy for Teaching and Non-Teaching Staff:-

Under the guidelines of State Government and MSBTE ,Mumbai Institute has designed their own leave policies for teaching and non-teaching staff working in the institutes.

Rules of Leaves

1. No leave can be claimed as entitlement to the employee.
2. Teaching and non-teaching staff should make application to the Principal for taking any type of leaves with specific reason.
3. Any leave without the approval of the Principal of institute will be treated as un-authorized absence of the concerned staff and such absence will be treating as leave.
4. All types of leave shall be for the respective academic year only and shall expire at the end of the said academic year.
5. All the leaves and rules are applicable for each academic year i.e. from 1st June to 31 May
6. The Principal will be responsible for keeping upto date records of all types of leave of teaching and non-teaching staff time to time.
7. Teaching and non-teaching staff will get benefit of this leave policy that he/she completed their minimum 3 month of his/her service period in this institute
8. Half day leave will be sanctioned by Principal.
9. Emergency leave will be admissible only after approval by the Principal subject to the emergency reason.

1.Casual Leave

1. Teaching and non-teaching staffs are eligible for 10 casual leaves within the academic year.
2. Out of these 5 leaves are applicable for first term and remaining 5 leaves are applicable for second term of academic year.
3. If there are more than 05 casual leave in an academic term will be sanctioned as a special matter subject to sanction of Principal of Institute.

2. Medical Leave

3. Teaching and non-teaching staff can take 05 medical leaves in one academic year.
4. These leaves will be granted only for sickness of the concerned teaching or non-teaching staff.
5. If the said teaching or non-teaching staff is seriously ill, in addition to the above leave, additional 5 days leave will be given as a special matter, for this it will be mandatory to submit the doctors medical certificate and the same doctors fitness certificate to the college after recovery. Medical leave will be granted subject to the certificate of the competent medical officer.

3.Duty Leave

1. Teaching or non-teaching staff desire to take duty leave for going outside of college or out of the territory of PCMC and PMC for the academic or administrative work of the institute.
2. Duty leave will be sanction by Principal and Executive Officer. Un-authorized leave will not be considered and may treat as LWP.

4.Special Leaves

1. In addition to all the above leaves, the teaching and non-teaching staff will be allowed a maximum of 05 days special leave in a academic year for special / emergency occasion such as marriage of the employee, death of blood relatives and similar important reason.
2. Application for this type of leave should be submitted through Principal and will be granted only after the recommendation of the Executive Officer with prior approval from the Honorary General Secretary.

5.Vacation

1. The duration of Diwali holiday will be fixed by the management of the organization. However, when planning a summer vacation, the Principal of the college should consider the teaching, examinations and other activities in the college. Similarly, in this regard, the circulars of the Department of Higher and Technical Education of the Government of Maharashtra and the circulars of Maharashtra State Board of Technical Education ,Mumbai etc. should be taken into consideration.
2. The pre-planned proposal for summer vacation should be approved by Hon. General Secretary. During the summer vacation, the Principal and concerned staff will be fully responsible for completing the administrative and other essential tasks of the college on time.

6. Late Mark

1. A casual leave will be deducted in case of maximum three late marks (with the grace period of 10 min. of incoming time and 10 min. of early departure of outgoing time) incoming and outgoing 3 times a month of teaching and non-teaching staff.
2. If there is no casual leave remaining, late mark will be treated as LWP.

7.Maternity Leave

1. The female teaching and non-teaching staff with the minimum two years continuous service, having not more than two living children, shall be entitled to maternity leave on full pay and allowances, for maximum period of 180 days, subject to the submission of necessary documents and medical certificate.
2. The female teaching and non-teaching staff with the minimum one year continuous service, and having not more than two living children shall be entitled for the maternity leave on half pay and allowances, for maximum period of 180 days, subject to the submission of necessary documents and medical certificate.
3. In case of miscarriage abortion, including medical termination of pregnancy, the female teaching and non-teaching staff shall be entitled to maternity leave maximum period of six weeks.
4. In addition to the above leave, if the principal, teachers and non-teaching staff need more leave for extraordinary reasons, the application should be accompanied by all the required documents along with the recommendation of the executive officer. It should be submitted to the Honorary General Secretary for approval. Hon. General Secretary has right to accept or reject such type of leaves.
5. It is note, that the Management/Principal has right to change/ alteration the policyfrom time to time and same is final and binding.

Promotion Policies:-

The promotion policies are followed as per AICTE norms.

The following factors are taken into account:

1. Potential to assume higher responsibilities
2. Promotion and increment is given to staff based on experience, overall performance and self appraisal.

Annual increments and promotions in the grades are implemented by the management. The Management takes effective decisions and provides appraisal details to the concerned staff member by incorporating the decisions in the proceedings of the meetings of the managing committee to make them aware of the improvements and Recruitment and Promotional policies

D. Extent of awareness among the employees/ students

Information related to the governing bodies, policies, rules and various processes are disseminated through college website and various meetings.

9.1.3 Decentralization in working and grievance redressal mechanism (5)

Institute Marks

5.00

9.1.3. Decentralization in Working and Grievance redressal Mechanism

A. List the names of the faculty members who have been delegated powers for taking administrative decisions

The Institute has a decentralized method of working with each staff member for the assigned responsibilities.

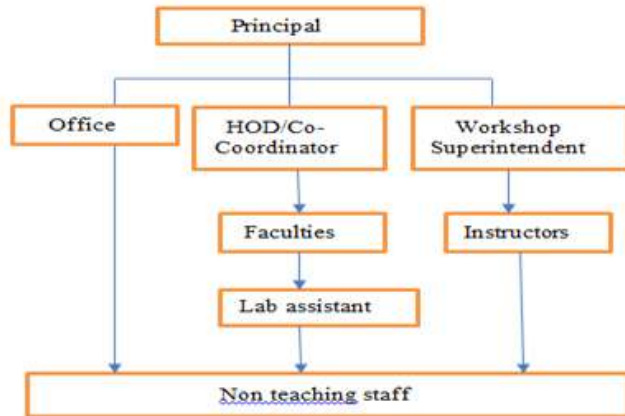


Image 9.1.3.1 Decentralization in working present at institute

a)Principal: Academic and Administration of the Institution.

1. Provide effective leadership to the Polytechnic
2. Implement and monitor policies of management, decisions taken in Governing Body and Polytechnic Committee. Guide various committees and cells for effective functioning.
3. Approve Academic calendar, hold faculty meetings, monitor admission, academic and exam related activities. Monitor faculty performance, resolve issues (if any) to create conducive atmosphere.
4. Ensure safety and security measures of Institutional infrastructure and the resources.
5. Evolve future plan and prepare for progress, development and sustainability.



Image 9.1.3.1 College's Principal awarded for his excellent remarkable contribution in education



Image 9.1.3.2 College's Principal awarded for his excellent contribution in education

b) Head of the Departments/In-charge: Academic and Administration of the department

1. The Head of the Department is responsible for the smooth functioning of the department as per the academic calendar.
2. Conduct academic co-curricular, extra -curricular activities of the students of the departments.
3. Monitoring the Industry Interaction for Guest faculty, Internship and Projects.
4. Assign various responsibilities such as Class Teachers, Mentors, Co-curricular co-ordinators, Academic co-ordinators, Lab In-charges etc. to Faculties and Laboratory Staff.
5. The staff of the department report to the Head from time to time with the results of assignments.

c) Lecturer

1. Lecturer is answerable to the Head of concerned Department.
2. Effective implementation of curricula of the concerned course/ Program.
3. Planning and delivering classroom and laboratory instructions.
4. Student's assessment and evaluation including tasks related with mid-term tests and term-end examinations.
5. Design and Development of learning resources.
6. Planning, setting of laboratories.
7. Guiding the concerned Lab Assistant in maintenance and repairs of laboratories and equipment's concerned with Laboratories and academic facilities development.
8. Preparing and maintaining student's records for the academic term.
9. Plan and execute student's development activities.
10. Guidance and counselling to students
11. Participate in professional activities through interaction with industries, consultancy, testing continuing education and trainings, industry sponsored projects, entrepreneurship development, research.
12. Assist Head of department in departmental activities and providing student's services.
13. Keep abreast of the newer knowledge, skills and technology through self-up gradation and dissemination of knowledge through articles, books, journals, and seminars etc.
14. Self-development through qualification improvement, experience enrichment, professional activities and interactions with professional bodies.
15. Participate in non-formal mode of education for benefit of society / community.
16. To plan and implement the activities to take care of hygiene, safety, and housekeeping in institute.
17. Motivator and facilitator for carrying con-curricula and extracurricular activities for developing overall personality of students.

d)Workshop Superintendent

1. Workshop Superintendent is responsible to the principal in all matters concern with the workshop instructions, proper utilization of men, materials, machines and maintenance in the workshops and services to various departments.
2. Plan, deliver and evaluate theoretical and workshop instructions.
3. Design, develop and test instructional material and task for skill Training.
4. Procurement, erection/installation, and commissioning of plant and equipment's.
5. Procurement and storage of raw materials, tools, and instruments Guide students in the performance of practical tasks and exercises and evaluate their performance.
6. Advise and assist students and faculty members in the fabrication of their project work.
7. Participate in professional development activities.
8. Manage the maintenance of equipment's and tools in the shops including preventive and breakdown maintenance, lay down safety procedures.
9. Commercial, financial, personnel and security functions as stipulated.
10. Planning, scheduling, organizing, coordinating, and monitoring workshop training, sessions, and task of the polytechnic the course/Course
11. The non-teaching staff (Technical and Non-technical) is to support academic as well as administrative activities to achieve desired output according to mission and vision of the institute.
Responsibilities: The responsibilities of non-teaching staff are as per the state government norms published at time to time and provide required services to all stake holders.

Table 9.1.3 List of names of the faculty who have been delegated powers of taking administrative decisions: Institute Level portfolio Distribution

Sr. No.	Name of Portfolio	Name of Coordinators
1	Principal	Prof. A.B.Thite
2	HOD Computer Engineering Department	Mrs. A.A.Deshpande
3	HOD Mechanical Engineering Department	Mr.S.B.Survase

4	SHOD Automobile Engineering Department	Mrs.A.A.Tikale
5	HOD Artificial Intelligence & Machine Learning Department	Mrs. A.A.Deshpande
6	Academic Co - ordinator	Mrs.S.V.Waghmare
7	Institute level Regular Time Table	Mrs.A.A.Deshpande Mr.S.B.Survase
8	MIS	Mr.P.R.Purandare
9	Training & Placement Officer	Mr.M.m.Momin
10	EDP Cell	Mr.A.A.Jain
11	Regular Diploma Admission ,Facilitation Center	Mrs.A.A.Deshpande
12	School Connect Program	Mr.S.B.Khadke
13	MSBTE activities	Mr.S.b.Survase
14	AICTE Compliance ,EOA and AISHE information	Mrs.A.A.Deshpande
15	Internet , LAN,CCTV	Mr.R.P.Patil
16	House Keeping	Mr.Nikam
17	IEDSSA	Mr.A.M.Dhepe
18	DBT and coordination of other scholarship	Mr.K.S.Lokhande
19	Induction Program & Counselling cell	Mr.S.B.Khadke Ms.S.S.Mundhe
20	Alumni Association	Mr.M.M.Momin
21	Institute website	Mr.P.G.Nemade

B.Mechanism and Composition of Grievance Redressal Cell including Anti Ragging Committee & Sexual Harassment Committee

- **Grievance Redressal Committee Mechanism**

1. Grievance Redressal committee is formed comprising of the Principal, Head of the Departments and staff members.
2. All grievances and suggestions found in the suggestion box are analyzed by the Grievance Redressal Cell and suitable measures are taken.
3. Guidelines of the AICTE are followed
4. Regular meetings are conducted and Grievances raised are addressed.
5. Composition of Grievance Redressal Committee

a)Anti-Ragging Committee

According to the provision of All India Council Technical Education (AICTE) norms, the Principal framed the Anti-Ragging Committee during academic year 2015-2016 first.

Table 9.1.3.1 List of Members of Anti-Ragging Committee

Sr. No.	Name of committee member	Designation
---------	--------------------------	-------------

1	Mr. A. B. Thite (Principal)	Chairman
2	Mr. S. G. Gadiya (Ex. Corporator)	Civil Representative
3	Mr. Krishnadev Khrade (Sr. Police Inspector)	Police Representative
4	Mr. P. M. KunKulol (Reporter Lokmat Newspaper)	Media Representative
5	Mr. S. S. Mutha (Member Maharashtra Cricket Asso.Commtee)	NGO Representative
6	Mrs. A. A. Deshpande (HOD Computer Dept)	Member
7	Mrs. S.V. Waghmare (Academic Coordinator)	Member
8	Mrs. A.A. Tikle (HOD Automobile Dept.)	Member
9	Mr. S.B. Survase (HOD Mechanical Department)	Member
10	Mr. P. P. Purandare (Non-Teaching Representative)	Member
11	Mr. Sunil Pande (Parent Representative)	Member
12	Ms. Shruti Narkhede (Student Representative)	Member

Activities undertaken (Every year)

- Formation of committee by the Principal.
- Planning of meetings at the beginning of the Semester
- Preparation of Action plan for regular vigilance.
- Display of Ragging prohibition notices on all department notice boards
- Selection of the Staff representatives from each department to take rounds for prohibition of ragging.
- Regular meetings to resolve the problems, if any.
- Guiding to Institute Counselor for handling psychological issues related with ragging.
- Collection of undertaking forms from all students

b) Women Grievance Redressal Committee -Internal Compliant Committee (ICC) Vishakha –

1. A new section known as the “Women Grievance Redressal Committee” (WGRC) has started functioning in the college from the academic session 2011.
2. WGRC is formed in order to keep the healthy working atmosphere among the faculty of Polytechnic.
3. This Cell helps women faculty and students to record their complaints and solve their problems related to resources and personal grievances.
4. Woman Harassment complaints will be handled as per government guidelines.
5. Women’s Grievance Redressal committee functions with a view to look after the general well-being of the women folk in the campus.
6. It organizes different women empowerment programs.
7. All women staff and students are members of the cell.
8. Any type of sexual harassment physical, verbal or mental shall come under the purview of the cell, and it is empowered to initiate proactive actions against such offences

Table 9.1.3.2 List of Members of Women Grievance Redressal Committee

Sr. No.	Name of committee member	Designation
1	Mr. A.B. Thite (Principal)	Chairperson
2	Mrs. A. A. Deshpande (HOD Computer Dept)	Member
3	Mrs. S.V. Waghmare (Academic Coordinator)	Member
4	Mrs. A.A. Tikle (HOD Automobile Dept.)	Member

5	Mrs. N.R. Dangi (Lecturer Comp Dept)	Member
6	Mrs. V. M. Patil (Lecturer Basic Science)	Member
7	Ms. K. P. Solaskar (Lecturer Basic Science)	Member

- Major Activities:

1. Awareness of WGRC among the women students and staff in the polytechnic
2. Encouraging the women to address their problem to the mentors
3. Program on "Self Defense".
4. Program on Health and Hygiene
5. Celebrate the International womens Day on 8th March as women empowerment

C)Student Grievance Redressal Cell

The Student Grievance Redressal Cell functions are:

1. Invite student's suggestions for improving theory and practical teaching performances.
2. Take cognizance of the request made by students about the various facilities and implement solutions.
3. To resolve any conflicts among the students and to maintain a conducive environment.
4. Coordinates Counseling sessions to newly admitted students to deal with Stress and other problems faced.
5. Monitor Student activities to prevent untoward incidents.
6. Disobedient students are being identified and are counseled to be punctual.
7. To deal with any incidences involving students from time to time and report to the Principal for further action.

Table 9.1.3.3 List of Members of Student Grievance Redressal Cell

Sr. No.	Name of committee member	Designation
1	Mr. A. B. Thite (Principal)	President
2	Mrs. A. A. Deshpande (HOD Computer Dept)	Member
3	Mrs. S. V. Waghmare (Academic Coordinator)	Member
4	Mr. S.B.Survase (HOD Mechanical Department)	Member

5	Mrs. A.A. Tikle (HOD Automobile Dept.)	Member
6	Mr. S. B. Khadke (Lecturer, Comp. Dept.)	Member

D)SC/ST (Prevention of Atrocities) Committee

1. The cell is formed to ensure fair treatment to Reserve Category staff and students. Institute's overall ambience is extremely fair for all stakeholders including students from economically weaker sections.
2. Administration helps the students to fill scholarship forms and complete other documentation to entitle their learning at concessional fees.
3. Students are properly informed about different scholarship schemes, deadlines etc. to avail the benefit.
4. The Cell basically aims to uplift the morale of deprived section of students and staff.
5. Ensure equal opportunities to all the students and staff irrespective of their background.
6. Encourage and motivate through counseling and personality development programs.
7. The Cell is formed to deal with incidences (if any) and to report about individuals responsible for atrocities and suppression.

Table 9.1.3.4 List of Members of SC/ST (Prevention of Atrocities) Committee

Sr. No.	Name of Faculty	Designation
1	Prof. A.B.Thite	Chairman
2	Mr.D.T.Pawar	Member
3	Mr.M.A.Sawardekar	Member
4	Mrs. S.P. Adsul	Member
5	Mr.K.S.Lokhande	Member

9.1.4 Delegation of financial powers (5)

Institute Marks

5.00

Financial powers are delegated to the Principal of the institute and principal is the one of the signing authorities for financial transactions. Provision of petty cash of Rs. 10000 /-is also made available with the Principal .

9.1.5 Transparency and availability of correct/unambiguous information in public domain (5)

Institute Marks

5.00

9.1.5 Transparency and availability of correct /ambiguous information in public Domain

- A. Information on the policies, rules, processes is to be made available in web site
- B. Dissemination of the information about students, faculty and staff

1. The institute has its own website <http://rmdiot.in/> (<http://rmdiot.in/>) .
2. Activities held in the institute and department are published on this website regularly.
3. The academic calendars of MSBTE, institute and department are published well in advance.
4. Time tables, project schedule, assessment and evaluation plans are made available well in advance on the noticeboards.
5. Information related to the institutional policies, rules and various processes are disseminated through college website.
6. Notice Boards are available in main block through which information is made available to the staff and students and circulars are sent to the classrooms.

9.2 Budget Allocation, Utilization, and Public Accounting at Institute level (10)

Total Marks 10.00

Summary of current financial year's budget and actual expenditure incurred(for the institution exclusively)in the three previous financial years

CFY : 2022-23

Total Income in 2022-23 Rs. 2,40,11,014/-				Actual Expenses in 2022-23 Rs. 3,27,79,748/-			Total Number of students in 2022-23 (524)
Fee	Govt.	Grant(s)	Other Sources	Recurring Including Salaries	Non- recurring	Special Projects/ any other	Expenses per student
2,34,30,668	-----	-----	5,80,346	3,24,59,089/-	3,20,659/-	-----	62,556.77/-

CFY m1: 2021-22

Total Income in 2021-22 Rs. 1,99,68,637/-				Actual Expenses in 2021-22 Rs. 2,29,57,320/-			Total Number of students in 2021-22 (442)
Fee	Govt.	Grant(s)	Other Sources	Recurring Including Salaries	Non- recurring	Special Projects/ any other	Expenses per student
1,97,08,000	-----	-----	2,60,637/-	2,29,57,320/-	-----	-----	51,939.64

CFY m2: 2020-21

Total Income in 2020-21 Rs. 1,96,23,378/-				Actual Expenses in 2020-21 Rs. 1,63,80,546/-			Total Number of students in 2020-21 (467)
Fee	Govt.	Grant(s)	Other Sources (specify)	Recurring Including Salaries	Non- recurring	Special Projects/ any other	Expenses per student
1,94,17,200	-----	-----	2,06,178	1,63,80,546	-----	-----	35,076.12

CFY m3: 2019-20

Total Income in 2019-20 Rs. 1,51,88,293/-				Actual Expenses in 2019-20 Rs. 2,74,69,075/-			Total Number of students in 2019-20 (364)
Fee	Govt.	Grant(s)	Other Sources (specify)	Recurring Including Salaries	Non- recurring	Special Projects/ any other	Expenses per student
1,49,82,773	-----	-----	2,05,520	2,74,69,075	-----	-----	75,464.49

Items	Budget in 2022-23	Actual Expenses in 2022-23	Budget in 2021-22	Actual Expenses in 2021-22	Budget in 2020-21	Actual Expenses in 2020-21	Budget in 2019-20	Actual Expenses in 2019-20
Non-Recurring Expenses								
Machinery And Equipments	70,000	63,449	0	0	0	0	0	0
Library	3,00,000	2,57,210	0	0	0	0	0	0
Total Non-Recurring Expenses	3,70,000	3,20,659	0	0	0	0	0	0
Recurring Expenses								
Advertisement	1,00,000	86,914	50,000	27,890	1,75,000	0	1,50,000	53,936

Affiliation Fee	60,000	60,212	60,000	45,000	1,62,000	60,000	1,35,000	60,120
Audit Fee	10,000	9,100	10,000	6,000	20,000	6,000	10,000	6,000
Bank Charges	10,000	8,152.96	3,000	2,579	2,689	2,152	2,000	978.15
Books & Periodicals	1,00,000	96,737	5,000	230	12,500	0	35,000	29,080
Cleaning	4,00,000	3,80,717	3,00,000	3,69,500	1,50,000	88,155	3,50,000	3,32,372
Computer Repairs & Maintenance	1,00,000	99,303	1,00,000	2,58,907	1,70,328	1,41,940	2,20,000	2,20,275
Educational Material Expenses	3,00,000	1,51,524	5,00,000	13,130	1,00,000	1,820	1,00,000	11,949
Educational Processing Expenses	1,00,000	83,924	1,50,000	1,08,309	1,50,000	32,590	2,00,000	1,86,951
Electricity Charges	3,00,000	2,78,940	2,50,000	1,60,680	1,75,000	1,06,760	2,00,000	3,73,980
Examination Expenses	1,00,000	92,794	50,000	1,975	62,500	0	60,000	55,573
Function & Festival	70,000	52,959	50,000	9,818	4,000	2,570	50,000	41,865
Graden Expenses	0	0	77,000	70,987	0	68,915	0	77,088
Honorarium	50,000	21,683	1,00,000	0	1,00,000	0	50,000	4,600
Other Expenses	1,000	318	0	0	10,000	0	10,000	0
Insurance	50,000	42,352	67,500	29,158	0	0	0	0
Postage Courier & Communication	2,00,000	1,98,310	2,00,000	1,94,402	1,50,000	1,53,480	5,000	1,609
Printing & Stationary	1,00,000	74,882	50,000	18,393	20,102	16,082	2,00,000	1,92,793

Prizes	20,000	6,800	25,000	9,100	25,000	0	20,000	8,500
Professional Fees	50,000	46,194	75,000	37,394	75,000	37,394	60,000	35,700
Provident Fund	8,00,000	8,00,064	3,00,000	2,46,471	1,50,000	1,05,278	2,50,000	1,54,137
Property Tax	15,00,000	14,68,511	12,76,156	14,51,494	1600000	1504282	16,00,000	15,17,829
Repairs & Maintenance	27,00,000	26,78,614	3,60,000	3,58,087	15,000	12,394	1,00,000	98,208
Salary	2,30,00,000	2,07,51,103	1,70,79,852	1,54,37,264	1,75,00,000	95,74,429	2,00,00,000	1,83,22,431
Security Expenses	4,10,000	4,08,097	3,00,000	3,83,194	3,70,000	2,95,524	3,00,000	2,83,308
Sports Material & Expenses	50,000	31,970	50,000	0	1,00,000	0	50,000	7,500
Staff Uniform	30,000	27,980	10,000	0	30,000	0	20,000	18,060
Telephone & Internet Expenses	10,000	5,272	15,000	10,655	2,00,000	4,566	3,00,000	2,69,696
Transport & Octroi	5,000	2,300	10,000	700	10,000	300	10,000	3,950
Travelling & Conveyance	20,000	14,750	25,000	4,286	20,000	2,500	2,60,000	25,478
Water Charges	30,000	23,913	40,000	33,500	6,300	5,210	35,000	457
Website Expenses	9,000	1,416	7,000	1,239	10,000	1,239	7,000	1,239
Xerox Expenses	20,000	14,665	5,000	4,106	7,000	4,043	5,000	18,731
Building Usage Charges	35,00,000	34,65,000	30,00,000	29,70,000	35,00,000	33,00,000	40,00,000	39,60,000
Depreciation	10,00,000	9,73,618	7,00,000	6,92,872	10,00,000	8,52,923	11,00,000	10,94,682

Total Recurring Expenses	3,52,05,000	3,24,59,088.96	2,53,00,508	2,29,57,320	2,60,82,419	1,63,80,546	2,98,94,000	2,74,69,075.15
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Table 1 - CFYm1 2021-22

Total Income 19968637				Actual expenditure(till...): 22957320			Total No. Of Students 442
Fee	Govt.	Grants	Other sources(specify) Admission, Bar	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify	Expenditure per student
19708000	0	0	260637	22957320	0	0	51939.64

Table 2 - CFYm2 2020-21

Total Income 19623378				Actual expenditure(till...): 16380546			Total No. Of Students 467
Fee	Govt.	Grants	Other sources(specify) Admission For	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify	Expenditure per student
19417200	0	0	206178	16380546	0	0	35076.12

Table 3 - CFYm3 2019-20

Total Income 15188293				Actual expenditure(till...): 27469075			Total No. Of Students 364
Fee	Govt.	Grants	Other sources(specify) Admission, Bar	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify	Expenditure per student
14982773	0	0	205520	27469075	0	0	75464.49

9.2.1 Adequacy of Budget Allocation (4)

Institute Marks

◆ **Adequacy of budget allocation -**

In the beginning of every academic year, HoDs meeting is convened to discuss in detail about the budget requirement for various departments for the academic year concerned. Based on the discussions, HoDs are directed to submit a detailed proposal taking into account the increase in intake, revised curriculum and syllabus and the various events planned. The proposals received from all the departments are consolidated and submitted to the management for the sanction of the budget. The management usually allocates the budget considering the urgency of proposals. Always, sufficient budget has been allocated by the management to fulfil the requirements of various sections and departments of the institute.

CFYm1 2021-22		CFYm2 2020-2021		CFYm3 2019-20	
Budget In 2021-22	Actual Expenses in 2021-22	Budget In 2020-21	Actual Expenses in 2020-21	Budget In 2019-20	Actual Expenses in 2019-20
2,53,00,508	2,29,57,320	2,60,82,419	1,63,80,546	2,98,94,000	2,74,69,075.15

Financial Year	Budget Sanctioned		Expenses		Remark
	Non-Recurring	Recurring	Non-Recurring	Recurring	
2021-22	0	2,53,00,508	0	2,29,57,320	-----
2020-21	0	2,60,82,419	0	1,63,80,546	-----
2019-20	0	2,98,94,000	0	2,74,69,075.15	-----

9.2.2 Utilization of allocated funds (4)

Institute Marks

4.00

◆ Utilization of allocated funds-

Each department HoD after receiving the approved budget convene a meeting and discuss the step by step procedure for procuring the equipment and consumables required for the department Faculty who are in charge of the laboratories and course coordinators are nominated to involve in the purchase of equipment's. The nominated faculty members identify the companies/ agencies to receive the quotations and then prepare a comparative statement. The comparative statement will be submitted to the purchase Committee to get approval from the management and then place orders to procure the items. The HoD periodically monitor the faculty members involved in the purchase and take necessary efforts to see that the purchase of items is complete in all respects and the allocated funds are fully.

CFYm1 2021-22		CFYm2 2020-2021		CFYm3 2019-20	
Actual Expenses in 2021-22	Budget In 2021-22	Actual Expenses in 2020-21	Budget In 2020-21	Actual Expenses in 2019-20	Budget In 2019-20
2,29,57,320	2,53,00,508	1,63,80,546	2,60,82,419	2,74,69,075.15	2,98,94,000

9.2.3 Availability of the audited statements on the institute's website (2)

Institute Marks

2.00

The recent audit reports are available with the institute and have been made available on the institute website i.e. rmdiot.in

9.3 Department Specific Budget Allocation, Utilization (5)

Total Marks 5.00

Computer Engineering

CFY 2022-23		CFYm1 2021-22		CFYm2 2020-2021		CFYm3 2019-20	
Budget In 2022-23	Actual Expenses in 2022-23	Budget In 2021-22	Actual Expenses in 2021-22	Budget In 2020-21	Actual Expenses in 2020-21	Budget In 2019-20	Actual Expenses in 2019-20
71,66,500	69,46,172	38,54,600	36,65,425	24,39,128	21,63,370	47,96,000	45,24,428

Computer Engineering								
Items	Budget in 2022-23	Actual Expenses in 2022-23	Budget in 2021-22	Actual Expenses in 2021-22	Budget in 2020-21	Actual Expenses in 2020-21	Budget in 2019-20	Actual Expenses in 2019-20
Non-Recurring Expenses								
Computers & Hardware Material	1,500,000	1,393,952	0	0	0	0	0	0
Total Non-Recurring Expenses	1,500,000	1,393,952	0	0	0	0	0	0
Recurring Expenses								
Affiliation Fee	15,000	15,053	15,000	15,000	40,000	15,000	34,000	15,000
Computer Repairs & Maintenance	100,000	99,303	300,000	258,907	170,328	141,940	220,000	220,275
Examination Expenses	25,000	23,198	16,000	1,975	16,000	0	15,000	13,893
Function & Festival	17,500	13,240	16,600	3,272	2,800	2,570	20,000	10,421
Salary	5,500,000	5,400,010	3,500,000	3,385,032	2,200,000	2,002,621	4,500,000	4,263,600
Website Expenses	9,000	1,416	7,000	1,239	10,000	1,239	7,000	1,239
Total Recurring Expenses	5,666,500	5,552,220	3,854,600	3,665,425	2,439,128	2,163,370	4,796,000	4,524,428

Table 1 :: CFY 2022-23

Total Budget 7166500		Actual expenditure (till...): 6946172	
Non Recurring	Recurring	Non Recurring	Recurring
1500000	5666500	1393952	5552220

Table 2 :: CFYm1 2021-22

Total Budget 3854600		Actual expenditure (till...): 3665425	
Non Recurring	Recurring	Non Recurring	Recurring
0	3854600	0	3665425

Table 3 :: CFYm2 2020-21

Total Budget 2439128		Actual expenditure (till...): 2163370	
Non Recurring	Recurring	Non Recurring	Recurring
0	2439128	0	2163370

Table 4 :: CFYm3 2019-20

Total Budget 4796000		Actual expenditure (till...): 4524428	
Non Recurring	Recurring	Non Recurring	Recurring
0	4796000	0	4524428

9.3.1 Adequacy of Budget Allocation (2)

Institute Marks

The Head of the department suggests the concerned lab in charges to give the budget needed for the coming academic year. The Lab in charge gives, both, Recurring and Non - Recurring expenditure needed for the lab. Based on the budget gave by different Lab in charges the a last budget proposition will be set up with the accompanying things

- Laboratory equipment's
- Laboratory consumables
- Maintenance costs
- Miscellaneous costs

Budget given by the institute to the department is sufficient to keep up and acquire new things for the department, to meet the scholarly prerequisites .The yearly budget is prepared according to the needs & requirements of the departments taking into consideration of annual intake of students, laboratory & infrastructure developments. The budget allocation and utilization for the last four years is adequate.

Computer Engineering

CFY 2022-23		CFYm1 2021-22		CFYm2 2020-2021		CFYm3 2019-20	
Budget In 2022-23	Actual Expenses in 2022-23	Budget In 2021-22	Actual Expenses in 2021-22	Budget In 2020-21	Actual Expenses in 2020-21	Budget In 2019-20	Actual Expenses in 2019-20
71,66,500	69,46,172	38,54,600	36,65,425	24,39,128	21,63,370	47,96,000	45,24,428

Financial Year	Budget Sanctioned		Expenses		Remark
	Non-Recurring	Recurring	Non-Recurring	Recurring	
2022-23	15,00,000	56,66,500	13,93,952	55,52,220	-----
2021-22	0	38,54,600	0	36,65,425	-----
2020-21	0	24,39,128	0	21,63,370	-----
2019-20	0	47,96,000	0	45,24,428	-----

9.3.2 Utilization of allocated funds (3)

Institute Marks

3.00

The allocated funds are utilized properly and are adequate as per the Academic requirements. The budget funds are utilized on priority basis as per the requirements of department based on availability of funds. However, all recurring and non-recurring expenditure of departments is met in full (including salaries, lab consumables etc.)

Computer Engineering

CFY 2022-23		CFYm1 2021-22		CFYm2 2020-2021		CFYm3 2019-20	
Actual Expenses in 2022-23	Budget In 2022-23	Actual Expenses in 2021-22	Budget In 2021-22	Actual Expenses in 2020-21	Budget In 2020-21	Actual Expenses in 2019-20	Budget In 2019-20
69,46,172	71,66,500	36,65,425	38,54,600	21,63,370	24,39,128	45,24,428	47,96,000

9.4 Library and Internet (20)

Total Marks 20.00

(It is assumed that zero deficiency report was received by the institution, Effective availability and utilization to be demonstrated)

9.4.1 Quality of learning resources (hard/soft) (10)

9.4.1 Quality of learning resources (hard/soft)

Library and Information Centre has a collection of over 9656 books.

The library is computerised with Vriddhi software.

The Library facilities include:

- Reading room with issue of text/reference books.
- Home issue of 2 books per students.
- Book Bank facility is provided to students every Semester.
- Free Book Bank sets are issued to SC/ST students.

The Library has subscription of National as well as International journals.

The Reading room can accommodate over 45 students and separate area for staff.

9.4.1.1 AICTE Zero deficiency reports were received for all the assessment years.

A. Available learning and digital library resources:

- Number of titles : 1655
- Number of volumes : 9656
- CDs : 100
- Student Project reports : 256
- International / National journals : 15
- Availability of digital library content : yes
- Availability over Intranet/Internet : yes
- Availability of an exclusive server : yes
- Number of users per day : 18
- Number of E-books : 433

B. Accessibility to students:

- The library works on all days of the year (excluding Government holidays) to the students.
- Under issue section, students get two books on their library card for seven days.
- During working hours of the library, students can access books for reading in the reading room facility on their library card.
- Faculty gets reference books according to their need and for flexible durations.
- Journals are subscribed at regular intervals.
- Search can be done by using VRIDDHI s/w.

C. Titles and volumes:

Academic Year	Books		Journals/ Magazines
	Total No. of Volumes	Total No. of Titles	Total No. of Journals
2022-23	8590	1655	15
2021-22	7951	1625	-
2020 - 21	7900	1617	-

9.4.2 Internet (10)

Institute Marks

10.00

Name of the Internet provider	Gazon
Available band width	100Mbps
WiFi availability	WiFi is available
Internet access in labs, classrooms, library and offices of all Departments	Internet access is available in labs, classrooms, library and offices of all de
Security arrangements	Camera surveillance and Firewall is available

9.5 Institutional Contribution to the Community Development (5)

Total Marks 5.00

9.5 Institutional Contribution to the Community Development/ Go-green

The institute conducts various programs of social importance / relevance such as Road Safety Awareness program, Electrical Safety Awareness Program, Awareness regarding use of solar energy, tree plantation, awareness on reuse and recycling e-waste and other things with v collect NGO, old age and orphanage home visit, helping hands to flood area people (Kolhapur), make and distribute barricades to pimpri chinchwad police, make and distribute sanitizer stand in needy area, ahimsa run marathon.

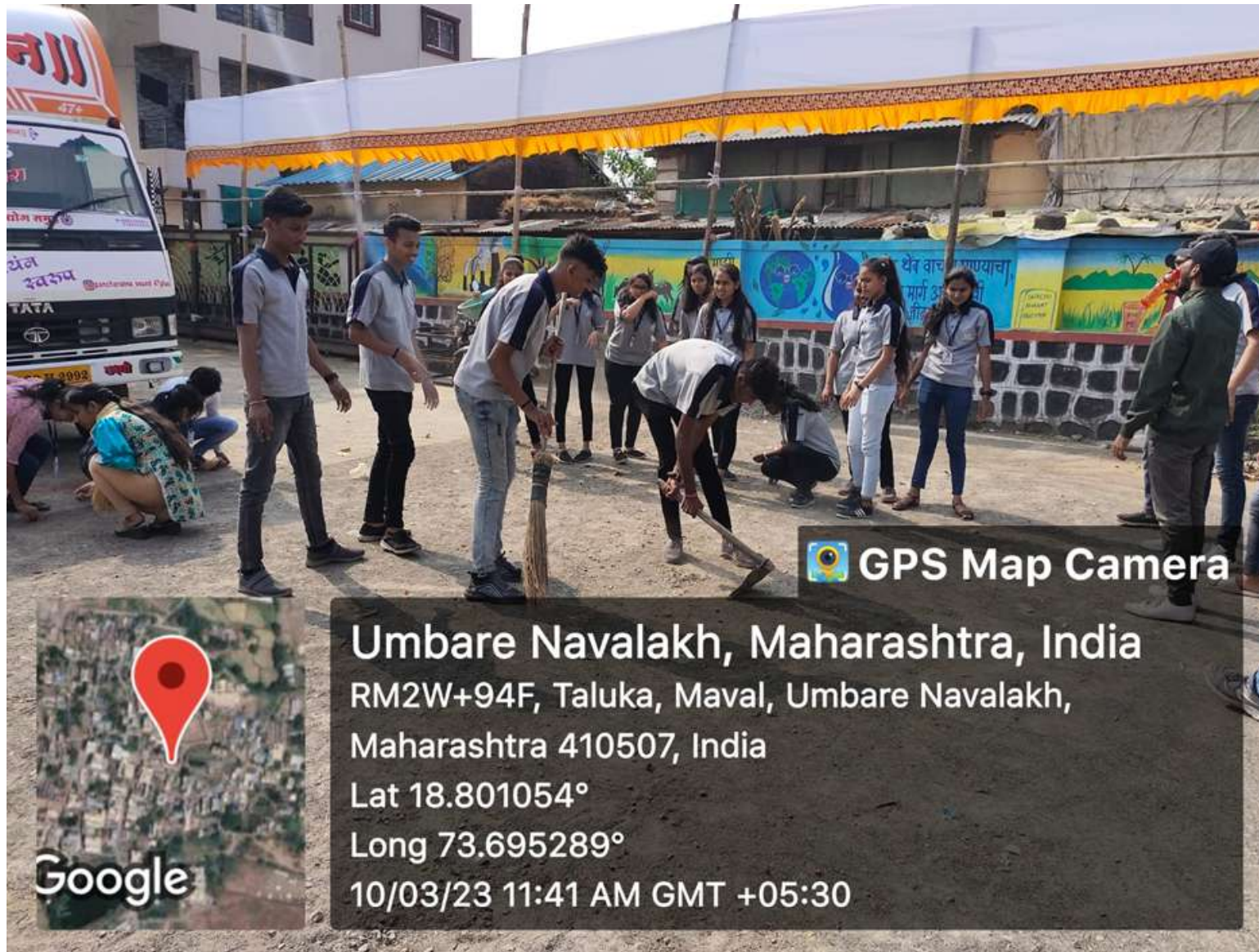


Image 9.5.1 NSS camp at Navlakh Umbre 2022-23



Image 9.5.2 Ganesh Idol making workshop under green club activity



Image 9.5.3 reuse recycle activity with V collect(NGO) under green club activity



Image 9.5.4 Visit to old age home in chinchwad 2022-23



Image 9.5.5 participated in world record holder ahimsa run marathon rally



Image 9.5.6 AI students visit to orphanage home in chinchwad 2022-23



Image 9.5.7 organized and Conduct Job fair 2019-20



Image 9.5.8 make and distribute barricades to Pimpri Chinchwad police



Image 9.5.9 helping hands to flood area people (Kolhapur)

9.6 Alumni Performance and Connect (10)

Total Marks 10.00

9.6 Alumni Performance and Connect (10)

- The Alumni meet committee member organized and conduct Annual Gathering to reach and engage alumni with present students by building strong bonds between Alumni, Students and the Institute.
- The Alumni meet committee is for effective coordination with department, each department has Alumni coordinator.
- Alumni of RMDIOT are working at respectable positions in various industries, government departments, research organizations or educational institutes. Many of them are entrepreneurs too.



Image 9.6.1 Alumni meet 2022-23



Image 9.6.2 Alumni meet 2022-23



Figure 9.6.3 : Registration certificate of alumni association

Sr. No	Name	Signature
1.	Mr. Anil Bhausaheb Thite	
2.	Mr. Harshal Rakesh Gaikewad	
3.	Mr. Ganeshkumar Arjun Kokate	
4.	Mr. Chetan Rajendra Lunkad	
5.	Mr. Ajay Rambadhur Mourya	
6.	Mr. Milind Ramesh Kamble	
7.	Mr. Akash Bharat Kale	
8.	Mr. Akash Kailas Jawalkar	
9.	Mr. Shubham Sunil Shinde	

Figure 9.6.4: List of members of alumni association

Annexure I

(A) PROGRAM OUTCOME (POs)

1. **Basic and Discipline specific knowledge:** Apply knowledge of basic mathematics, science and engineering fundamentals and engineering specialization to solve the engineering problems.
2. **Problem analysis:** Identify and analyse well-defined engineering problems using codified standard methods.
3. **Design/ development of solutions :** Design solutions for well-defined technical problems and assist with the design of systems components or processes to meet specified needs.
4. **Engineering Tools, Experimentation and Testing:**Apply modern engineering tools and appropriate technique to conduct standard tests and measurements.
5. **Engineering practices for society, sustainability and environment:**Apply appropriate technology in context of society, sustainability, environment and ethical practices.
6. **Project Management:** Use engineering management principles individually, as a team member or a leader to manage projects and effectively communicate about well-defined engineering activities.
7. **Life-long learning:**Ability to analyse individual needs and engage in updating in the context of technological changes.

(B) PROGRAM SPECIFIC OUTCOME (PSOs)

PSO1	Computer Software and Hardware and Hardware Usage: Use state of the art technologies for operation and application of computer software and hardware.
PSO2	Computer Engineering Maintenance:Maintenance Computer Engineering related software and hardware systems.

Declaration

The head of the institution needs to make a declaration as per the format given -


- I undertake that, the institution is well aware about the provisions in the NBA's accreditation manual concerned for this application, rules, regulations, notifications and NBA expert visit guidelines in force as on date and the institutes shall fully abide by them.
- It is submitted that information provided in this Self Assessment Report is factually correct.
- I understand and agree that an appropriate disciplinary action against the Institute will be initiated by the NBA. In case, any false statement/information is observed during pre-visit, visit, post-visit and subsequent to grant of accreditation.

Head of the Institute

Name : A B Thite

Designation : Principal

Signature :



PRINCIPAL
Rasiklal M. Dhariwal Institute of Technology
Chinchwad, Pune-411 033.

Seal of The Institution :



Place : Chinchwad, Pune

Date : 09-11-2023 13:26:42