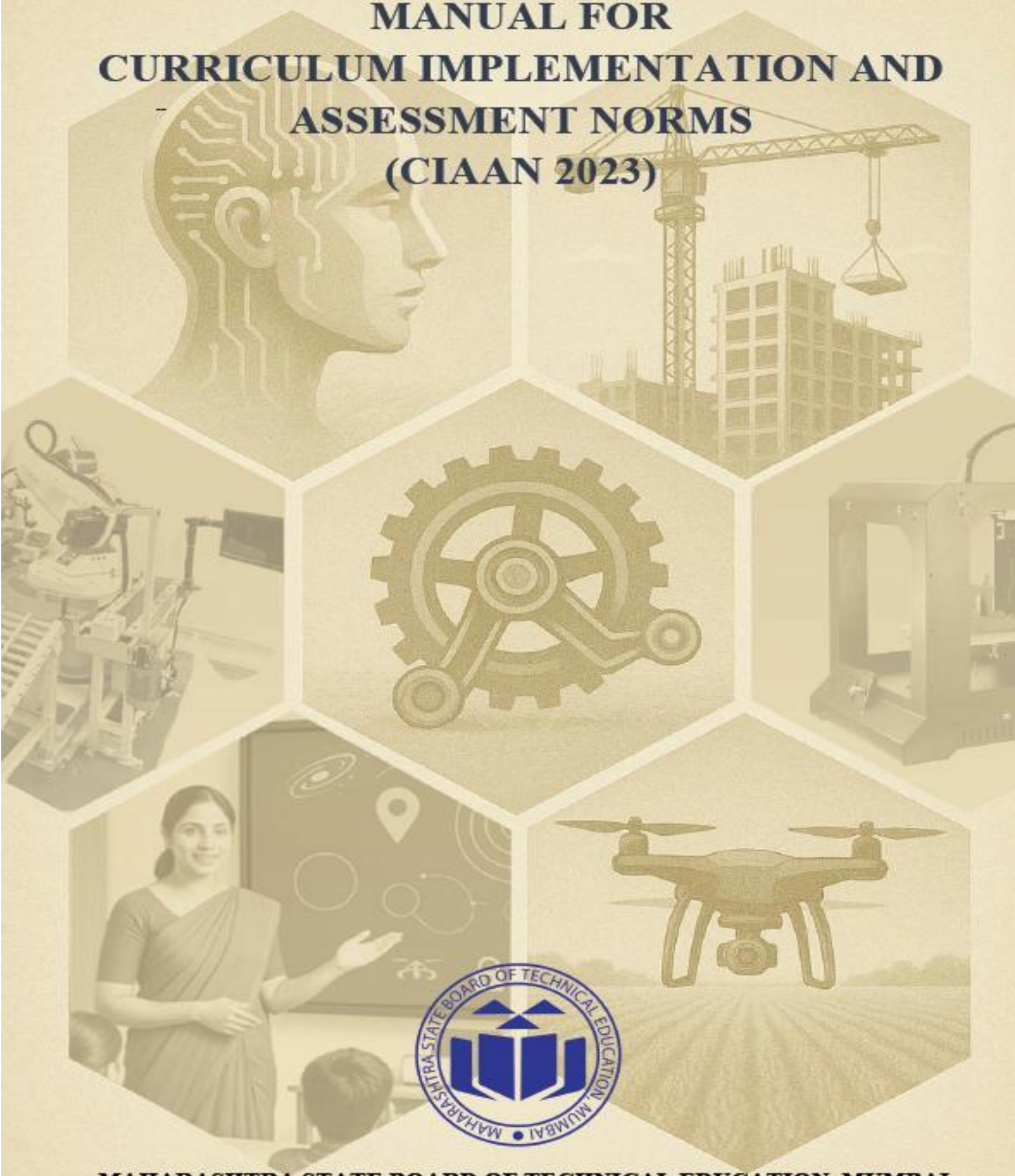
MANUAL FOR CURRICULUM IMPLEMENTATION AND ASSESSMENT NORMS (CIAAN 2023)



MAHARASHTRA STATE BOARD OF TECHNICAL EDUCATION, MUMBAI

For Diploma in Engineering and Technology Full time Three years Program

(with effect from 2023-24)

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49, Kherwadi, Ali Yawar Jung Marg, Bandra (E), Mumbai.

Various committees involved in preparation and revision of CIAAN Norms since the beginning -

In order to ensure the uniformity in the curriculum implementation Maharashtra State Board of Technical Education have been publishing CIAAN norms for prevailing curriculum.

CIAAN -2001 was developed by following committee.

Project Organiser	Chairman, Maharashtra State Board of Technical Education, Mumbai
Project Officer	Mr. M. A. Mulay, Controller of Examinations, Maharashtra State Board of Technical Education, Mumbai
Project Co-ordinator	Mr. B. D. Kale, Asst. Secretary, Maharashtra State Board of Technical Education, Mumbai
Expert Guidance	Dr. R. S. Mahashabde, Coordinator, T.T.T.I. Extension Centre, Pune
Project Institute	Government Polytechnic, Aurangabad
Project Leader	Dr. A. R. Thete, HOD Civil, Govt. Polytechnic, Aurangabad
Authors	Dr. A. R.Thete, HOD Civil, Autonomy and curriculum Development, Govt. Polytechnic, Aurangabad. Prof. M. A. Mulay, Controller of Examinations, Maharashtra State Board of Technical Education, Mumbai.

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5	Shri. P. N. Tandon, Vice Principal, Bharati Vidyapeeth's Instt. of Technology, Navi Mumbai	Member
6	Dr. A. R. Thete. Assis. Director of Technical Education, Regional Office, Aurangabad	Member
7	Shri. M. D. Shivankar, Dy. Secretary, M. S. Board of Technical Education, Regional Office, Aurangabad	Member Secretary

Second Revision: CIAAN - 2008-2009

Third Revision: CIAAN - 2011-12

Sr. No	Committee Member	Designation
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2	Shri. D. M. Gaikwad, Training & Placement Officer, Govt. Poly., Nashik	Member
3	Shri. S. N. Mahajan, Head of Mechanical Dept., V. B. V. Poly., Vasai	Member
4	Shri. B. B. Kulkarni, Lecturer in Mech. Engg. Dept. Govt. Polytechnic, Ratnagiri	Member
5	Shri. S. P. Yavalkar, Dy. Secretary, M. S. Board of Technical Education, Mumbai	Member Secretary

Norms for academic Monitoring for Engineering Diploma Programs were revised by the following committee in the year **2011-12**

Sr. No	Committee Member	Designation
1	Shri. D. P. Nathe, Principal, Government Polytechnic, Mumbai	Chairman

2	Shri. N. K. Mahajan, HOD, Sau. Venutai Chavan Polytechnic, Pune	Member
3	Shri. N. G. Nikam, Principal, P. D. V. V. Patil Institute of Technology and Engineering Pravranagar, Dist-Ahmednagar	Member
4	Shri. P. W. Charde, Principal, Shri. Datta Meghe Polytechnic, Nagpur	Member
5	Shri. S. P. Yavalkar, Dy. Secretary, M. S. Board of Technical Education, Mumbai	Member Secretary

Norms for academic Monitoring for Pharmacy Diploma Programs **were revised by the following committee in the year 2011-12**

Sr. No	Committee Member	Designation
1	Dr. M. N. Qureshi, Principal, Institute of Pharmacy Malegaon, Nashik	Chairman
2	Dr. C. V. Achara, Principal, K. M. Kundnani Pharmacy Polytechnic, Ulhasnagar	Member
3	Shri. N. R. Dighade, Principal, Advocate V. R. Manohar Institute of Diploma in Pharmacy, Wanadogari Hongna Road, Nagpur	Member
4	Shri. H. M. Washimkar, Shinhagad College of Pharmacy	Member
5	Shri. V. D. Vaidya, Dy. Secretary, M. S. Board of Technical Education, Mumbai	Member Secretary

Fourth Revision 2017-

Considering outcome based new curricula i.e. 'I' **Scheme, the following committee has been given the responsibility to revise the** Norms for Academic Monitoring **for** Engineering Diploma Programs **to be implemented from 2017-18 progressively.**

Sr. No	Committee Member	Designation
1	Dr. V. S. Bandal, Principal, Government Polytechnic, Karad	**Chairman**
2	Dr. S. M. S. Shashidhara, Head, Government Polytechnic, Pune	Member
3	Shri. A. S. Zanpure, Lecturer, Government Polytechnic, Pune	Member
4	Shri. S. A. Alatekar, Head, Institute of Civil and Rural Engineering, Gargoti	Member

5	Ms. N. S. Alange, Head, Sidhdheshwar Women's Polytechnic, Solapur	Member
6	Dr. M. R. Chitlange, Deputy Secretary, MSBTE, RO, Pune	Member Secretary

Fifth Revision 2023-

In alignment with the **New Education Policy 2020 (NEP 2020)** and the implementation of the **outcome-based curriculum, the 'K' Scheme (introduced from 2023-24),** the committee has articulated the underlying philosophy of the K Scheme, formulated norms for academic monitoring of engineering diploma programs, and revised the academic proformas to be adopted under the scheme.

Sr. No	Committee Member	Designation
1	Dr. Vitthal Bandal Principal, Government Polytechnic, Awsari	**Chairman**
2	Dr. R. B. Koli Principal APCOA.	Member
3	Dr. N. G. Kulkarani HOD, Mechanical Government Polytechnic, Pune (0006)	Member
4	Dr. S. S. Bharatkar HoD, Electrical Government Polytechnic, Mumbai (0001)	Member
5	Dr. Abhijit D. Palsodkar HOD, Polymer Government Polytechnic, Nashik (0029)	Member
6	Dr. S. V. Bhangale HoD, Electrical Government Polytechnic, Pune (0006)	Member
7	Dr. Usha Raghvan HOD VPM Polytechnic, Thane (0007)	Member
8	Mr. Ravindra A. Pranjale Lecturer, Electronics Government Polytechnic, Khamgaon	Member
9	Mr. K. P. Akole I/c HOD Government Polytechnic, Jalgaon	Member
10	Mr. R.T. Aghao Sr. Lecturer, Civil Government Polytechnic, Chh. Sambhajinagar	Member
11	Mr. S. S. Harip Lecturer, Mechanical Government Polytechnic, Ahilyanagar (0130)	Member

12	Mr. Chavan Pradeep Sitaram Sr. Lecturer, Chemical Government Polytechnic, Thane (0116)	Member
13	Mr. Nikhil S. Patil HOD, Mechanical Sharad Institute of Technology, Shirol	Member
14	Mr. Ashtaputre Sunil Sudhakarrao Lecturer, Electrical Government Polytechnic, Awasari (1051)	Member
15	Mrs. Pawar Tejashree D Lecturer, IT Government Polytechnic, Nashik (0029)	Member
16	Mrs. Ghode Priyanka S, Lecturer, IT Government Polytechnic, Awasari (1051)	Member
17	Mrs. Kshirsagar Anita D, Lecturer, IT Government Polytechnic, Pune	Member
18	Mrs. Mrunal U. Kokate Dy. Secretary Maharashtra state Board of Technical Education, Mumbai	**Member Secretary**

Norms for academic Monitoring for Pharmacy Diploma Programs(J Scheme) and academic proformas for Pharmacy **are revised by the following committee .**

Sr. No	Committee Member	Designation
1	Dr. Gharat Manjiri Sandeep Principal, K.M. Kundnani Pharmacy Polytechnic, Ulhasnagar (0189)	Chairman
2	Dr. Jagtap Vaijanath N Principal, MCE Society's Instt. of Pharmacy (Dip.), Pune (0638)	Member
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4	Dr. Thonte Sanjay Sangramapp Channabasweshwar Polytechnic D.Pharmacy, Latur (0052)	Member
5	Dr. Prashant D. Argade Lecturer, Government Polytechnic, Jalgaon (0018)	Member Secretary

FOREWORD

The Maharashtra State Board of Technical Education has adopted the policy of designing the curriculum based on the scientific principles since 1995. As a part of curriculum implementation, the student assessment norms have been implemented. These norms are now known as Assessment Norms 96. The revision of curriculum was done through various identified institutions (Design Centres) since 2001-02. The various curriculum revisions over a period of time mainly focused on professional and generic skill development in students and meeting the desired quality of teaching, learning and management. This process needed redesign of whole education process and to plan the activities at various levels such as institution, department and teacher level on regular basis. The Heads of Institutions are required to perform various functions to manage the change along with their routine activities.

The Curriculum Implementation and Assessment Norms (**CIAAN**) are prepared by MSBTE for ensuring the effective curriculum implementation. The word curriculum implementation shall not be taken in an isolated manner but as an integral part of curriculum development process at institutional level.

The latest revision of curriculum emphasises on the philosophy of Outcome Based Education (OBE) advocated by NBA and is aligned with the envisions of National Education Policy (NEP 2020) and guidelines of National Credit Framework (NCrF). The method of OBE curriculum revision is executed in reverse manner. That is first, the Programme Outcome, Courses outcomes and Practical outcome are defined outcomes are defined, then the learning experiences are designed to achieve these outcomes. Whereas, during curriculum implementation, the teacher will analyse the contents and then develop the learning experiences which will ensure the accomplishment of outcome.

The OBE basic philosophy comprises of 5-D approach. Define the outcome, Develop the curriculum, Deliver the instructions, Document the result and Define the future course of action for improvement.

While revising the curriculum, the latest industry requirements as well as expectation from pass-outs (graduate attributes) were also considered. During each stage of curriculum revision, the industry experts, being the main stake holders, are invited and actively involved. The product of NEP 2020 aligned curriculum development process is termed as “K” Scheme curriculum. As the outcomes

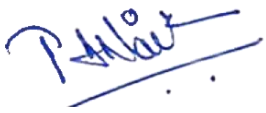
are finalised and validated by industry experts, most of programme curricula are now industry tailor-made and will certainly create industry ready pass-outs thus enhances diploma holders employability.

The effective implementation of curricula requires curriculum implementation guidelines for teachers and students. The Curriculum Implementation and Assessment Norms (**CIAAN-2023**) is the document prepared by MSBTE which will ensure uniform and smooth implementation of new "K" Scheme curricula. The newly designed CIAAN norms are focussed on the Program Outcomes (POs) and Program Educational Outcomes (PEOs). This philosophy provides feedback at regular intervals from all stake holders. This will also be helpful to the institutions to manage the resources effectively and efficiently.

The present CIAAN norms are revised and accordingly the Academic Monitoring proforma is also revised to make it compatible with NBA norms. The marks related to SAR proforma of NBA of Curriculum Teaching Learning Process & Program Outcomes (POs)/ Course Outcomes (COs) will be earned by every institute affiliated to MSBTE.

In the academic monitoring evaluation sheet out of 300 marks, around 70 % of marks are allotted to exclusively Academic Criterion. Even the important issues like Vision/Mission, Programme Outcome, Course outcome, Practical outcome, assessment of Self learning activities, assessment of Micro-project etc. features of curriculum have been adequately taken care by preparing respective proforma. The documentation of progressive assessment and end semester examination will be carried out in respective proforma given in the CIAAN norms.

I sincerely commend the dedicated efforts of the project team in conceptualising and preparing the revised CIAAN-2023 document. I am confident that this initiative will significantly enhance the quality and uniformity of curriculum implementation and student assessment across the state, thereby advancing MSBTE's vision of excellence in technical education.



(Dr. Pramod A.Naik)
Director
MSBTE, Mumbai

CONTENTS

ABBREVIATIONS

Abbreviation	Full Form
MSBTE	Maharashtra State Board of Technical Education
DTE	Directorate of Technical Education
NEP 2020	National Education Policy 2020
AICTE	All India Council for Technical Education
NCrF	National Credit Framework
NBA	National Board of Accreditation
NITTTR	National Institute of Technical Teachers Training and Research
HEI	Higher Education Institutions
RBTE	Regional Board of Technical Education
GRs	Government Resolutions
OBE	Outcome-Based Education
PSOs	Program Specific Outcomes
POs	Program Outcomes
COs	Course Outcomes
IKS	Indian Knowledge System
I scheme	Earlier Curriculum I Scheme (2017-2022)
CIAAN	Curriculum Implementation and Assessment Norms
T-L	Teaching-learning
CL	Classroom Learning
TL	Tutorial Learning
LL	Laboratory Learning
SL	Self-Learning
TLOs	Theory Learning Outcomes
LLOs	Laboratory Learning Outcomes
SLA	Self-Learning Assessment
FA	Formative Assessment
SA	Summative Assessment
AI	Artificial Intelligence
PH	Pharmacy

IoT	Internet of Things
AR/VR	Augmented and Virtual Reality
ME-ME	Multi Entry- Multi Exit
DSC	Discipline Specific Course
DSE	Discipline Specific Elective
AEC	Ability Enhancement Course
SEC	Skill Enhancement Course
VEC	Value Education Course
INP	Internship/Project
LSO	Laboratory specific Outcome
SLH	Self-Learning Hours
NLH	Notional Learning Hours
FA-TH	Formative Assessment – Theory
SA-TH	Summative Assessment – Theory
FA-PR	Formative Assessment – Practical
SA-PR	Summative Assessment - Practical
R	Remembering (as a level of Bloom's Taxonomy)
U	Understanding (as a level of Bloom's Taxonomy)
A	Application (as a level of Bloom's Taxonomy)
MOOCs	Massive Open Online Courses
RCC	Research Coordination Committee
ICIQAC	Institution curriculum implementation and Quality assurance cell
IEI	Institution of Engineers India
IETE	Institution of Electronics and Telecomm engineers
ISTE	Indian society for Technical Education
IDESSA	Inter Diploma Engineering Student's sports Association.
EIMC	External Academic Monitoring Committee
IAO	International accreditation organization
IIMC	Internal Institutional Monitoring Committee
ABC	Academic Bank Credits
DCIQAC	Department curriculum implementation and Quality assurance committee

PART-A

Philosophy & Implementation Guidelines

1. INTRODUCTION

In pursuit of academic excellence and national educational transformation, the curriculum framework adopted by the Maharashtra State Board of Technical Education (MSBTE) is holistically aligned with the progressive vision of the **National Education Policy 2020 (NEP 2020)**. The framework emphasizes flexibility, multidisciplinary learning, and the integration of vocational and academic pathways to foster employability, innovation, and lifelong learning. Central to this approach is the adoption of **Outcome-Based Education (OBE)**, which ensures that all curricular components are designed with clearly defined **Program Outcomes (POs), Course Outcomes (COs), and Practical Outcomes (LLOs)**, enabling measurable student achievement and continuous improvement. The implementation of the **National Credit Framework (NCrF)** further supports seamless credit accumulation and transfer, multiple entry-exit options, and alignment of skills with national qualifications. The curriculum is also developed in accordance with the standards set by the **All India Council for Technical Education (AICTE)** and is guided by key **Government Resolutions (GRs)** issued by the **Government of Maharashtra**, ensuring regulatory compliance, relevance to industry needs, and regional priorities. This integrated curriculum model aims to produce competent, socially responsible, and future-ready professionals who can contribute meaningfully to the nation's development.

2.0 Philosophy of K-Scheme Curriculum Design

The present scenario of globalization and the relatively young population of India, as compared to other developed countries of the world, have created a situation of demographic dividend for our country. This means that a great opportunity to groom young and capable work force to meet the global needs is available but the acceptance of our work force relies on the fact that the curricula offered by Polytechnics match with the provisions of Sydney Accord for Engineering Diploma Programs. National Board of Accreditation of India (NBA) has accepted most of the features of this accord. One of the core features of this 'Accord' is that the curriculum should be so designed that its implementation leads to development of tangible outcomes in the students.

The base for the 'K' scheme curriculum is **'Outcome-Based Education'**. This means that all the outcomes at every stage of this curriculum are expressed in 'tangible' terms. This again means that everybody concerned with this curriculum will look at what the learner ***'can do'*** at the end of every small and large teaching-learning (T-L) activity, but not by what the learner 'knows', because 'knowing' is a *covert* activity happening within the brain of the individuals, whereas outcome is an *overt* behavior exhibited because of the possession of some skills. This means all learning—from individual lessons to entire programmes—is defined in **clear, imperical measurable terms** that emphasize what students can demonstrate rather than merely what they know.

The curriculum integrates structured learning through following methods.

- Classroom Learning (CL),
- Tutorial Learning (TL),
- Laboratory Learning (LL),
- Self Learning (SL)

The focus of the curriculum is on building technical competencies and measuring their performance using following components of OBE technology -

- Appropriately-mapped Course Outcomes (COs)
- Theory Learning Outcomes (TLOs)
- Laboratory Learning Outcomes (LLOs)
- Self learning assessment (SLA)

Micro-projects and assignments are assigned only in courses that include SLA, promoting self-directed and practical learning in selected courses to facilitate reskilling and upskilling. These components are supported by following types of assessments

- Formative Assessment (FA),
- Summative Assessment (SA),
- Self Learning Assessment (SLA).

Key Features and Initiatives of the MSBTE K-Scheme (NEP-2020):

Industry-Relevant Curriculum: The K-Scheme curriculum is designed to align with the latest industry advancements, ensuring students acquire skills relevant to current and future job markets.

Emphasis on Practical Applications: The curriculum focuses on hands-on learning through practical sessions, workshops, real-world projects, internships and major projects/seminars. This approach fosters a holistic understanding and prepares students for real-world challenges.

Skill Development: The scheme emphasizes not just on technical skills but also critical thinking, problem-solving, adaptability, and digital expertise. Courses in management, entrepreneurship, and start-up development encourage multidisciplinary learning and innovation encompassing all domains of learning viz., cognitive psychomotor, affective.

Stakeholder Feedback and Industry Alignment: MSBTE has sought feedback from diversified industry stakeholders to ensure that the curriculum meets industry needs, emphasizing upskilling and reskilling to keep pace with technological advances.

Active and Collaborative Learning: Modern pedagogical methods such as flipped classrooms, active learning, and collaborative learning environments are promoted, using technological interventions to enhance students engagement and learning outcomes.

Internship: To bridge the gap between theory and industrial practice, the K-Scheme mandates 12/16 weeks of internship in industry environment, providing students with essential practical skills and exposure to real-world and work environments in line with guidelines of apex body (AICTE, New Delhi).

Multi Entry- Multi Exit (ME-ME): The scheme provides flexibility in terms of multiple entry and exit points, allowing students to earn certificates or diplomas at various stages, and facilitating credit transfer. This flexibility

supports lifelong learning and adaptability along with vertical and horizontal mobility. **(Annexure 2.1 - First Year Exit Policy, Annexure 2.2 - Second Year Exit Policy)**

Holistic Development: To align with NEP-2020 and promote holistic development, the K-Scheme includes courses on **Social and Life Skills** encompassing **Financial Literacy and Universal Human Values**, **courses on Yoga and Meditation, Essence of Indian Constitution**, and **Environmental Education and Sustainability**. These aim to nurture technical competency along with emotional well-being, ethical thinking, civic responsibility, and environmental awareness. Additionally, sub-topics on the Indian Knowledge System (IKS) are integrated across courses to connect learners with India's rich scientific and cultural heritage.

Driving Workforce Readiness for Industry 4.0: The MSBTE K-Scheme (NEP-2020) addresses the evolving challenges of Industry 4.0 by **integrating key technologies** such as **digital manufacturing, automation, data analytics, Artificial Intelligence (AI), Internet of Things (IoT), Green Energy, and Augmented and Virtual Reality (AR/VR) into the curriculum.** It marks a strategic shift in technical education, equipping students with core engineering and interdisciplinary skills essential for modern industries. The scheme also **emphasizes practical exposure, soft skills, and holistic development** to build a workforce with strong technical, analytical, and adaptive capabilities.

2.1 Need Assessment and Analysis -Outcome-Based Curriculum: Quality Perspectives in NEP-2020 Aligned Diploma Education

2.1.1 Need Assessment – Outcome-Based Curriculum at a Glance

2.1 Need Assessment –

The 'K' scheme curriculum is set in motion by the MSBTE undertaking the 'occupational analysis' of each of the Programs with stakeholder's input acquired through Impact analysis cum Need Analysis of earlier curriculum I scheme , which was conducted during 30/12/2022 to 02/03/2023. The feedback from stakeholders such as Faculty, Alumni and Employer. Total 20,237 feedbacks were received. The Feedbacks and suggestions were received from industry (No-1002), alumni (No-13234) and faculty (No-6001) .

- Inputs were acquired on following Major Parameters :-
  - Adequacy of technical knowledge and practical skill set to achieve success in job.
  - Contribution of technical knowledge and practical skills learnt during diploma programme to adapt to the work needs of employment in industry.

- Influence of the industrial training / internship, project, soft skills inculcated during diploma programme on the work needs of employment in industry.
- Additional technical skills, behavioural skills to be included ,
- Redundant topics if any
- Views on industrial training / Internship during diploma programme.
- Suggestions on type of industry based projects to be included.
- Success in Achieving The Programme Outcomes POs (What student/s expected to do after completing the programmme) set for 'I - Scheme' Curriculum
- Effect of incorporation of micro projects, internships, capstone project in courses on the conceptual level learning in students.

Acquiring feedback from stake holders and incorporations therein have been the continuous activity during each stage of K Scheme curriculum development process. The deliberations involved the MSBTE views and expectations of the industry and the expertise of NITTTR in curriculum development. NITTTR Bhopal was entrusted the responsibility of consultant for the task of revising the curriculum based on NEP2020 and outcome-based education philosophy through the team of MSBTE identified Programme Mentors, Program coordinators and course experts from polytechnics. The curriculum development cycle is as depicted in the flowchart given below.

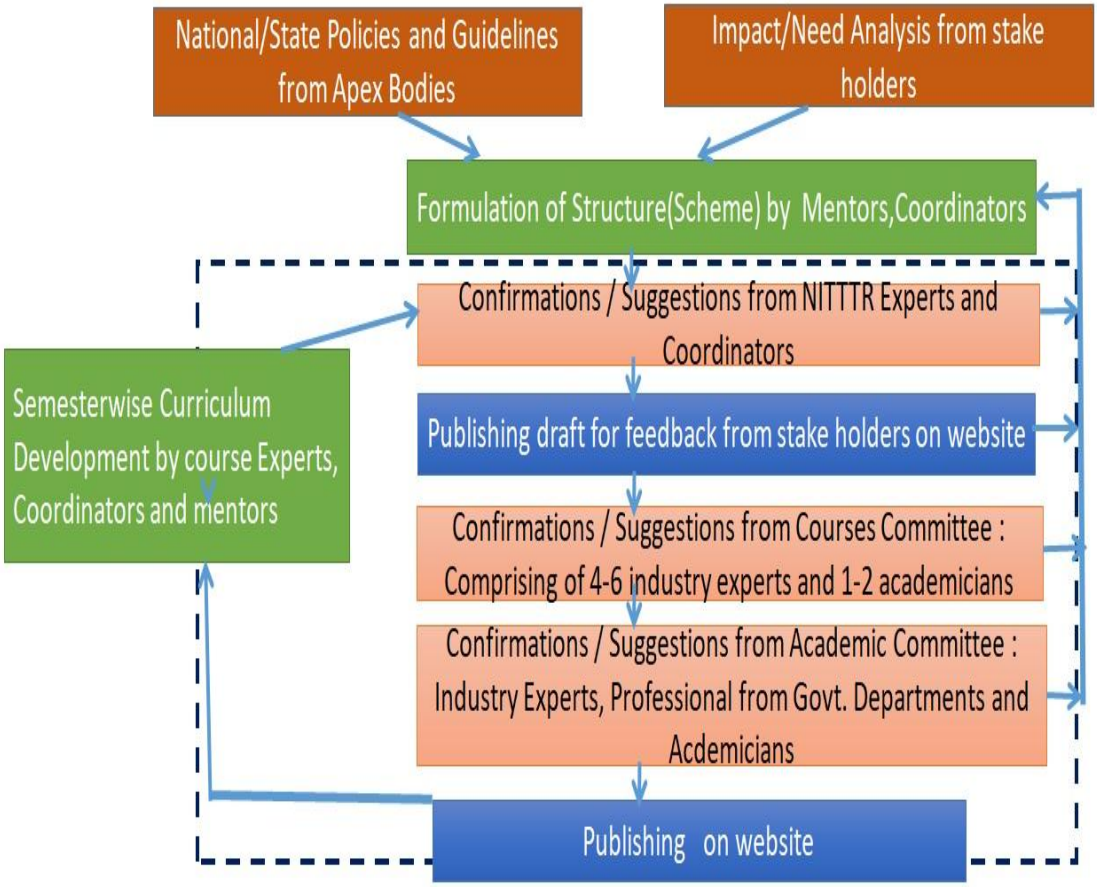


FIGURE 2.1 CURRICULUM DEVELOPMENT CYCLE

The entire curriculum development process was undertaken through the automated system developed by MSBTE, ensuring paperless working and complete transparency across all the users of the system. In this manner, the new curriculum got developed in letter and spirit.

The K-Scheme curriculum is rooted in a detailed Occupational Analysis, which serves as the foundation for designing programmes that truly meets industry expectations. For all AICTE approved diploma engineering programmes affiliated to Maharashtra State Board of Technical Education (MSBTE), the process of curriculum design involved mapping of real workplace roles, tools, and tasks to identify the essential competencies students must acquire. In line with NEP- 2020, MSBTE collaborated with industry representatives and academic experts to shape the curriculum based on Outcome-Based Education (OBE) principles. As a result, the K-Scheme does not merely deliver content, it equips the students with practical capabilities that align with current and emerging occupational needs.

2.1.2 Quality Perspectives in Diploma Engineering Education

Quality in diploma engineering education is not just about completing curriculum of a course, but it is about meaningful learning that leads to measurable outcomes. The K-Scheme ensures quality education through **clearly defined course outcomes, notional learning hours, and structured assessments such as FA, SA, and SLA.** Regular feedback from industry, faculties, and students helps in keeping the curriculum updated and relevant. The use of modern pedagogies, hands-on practice, and a blend of theoretical and practical knowledge strengthens the learning experience. Quality is also ensured through mapping of Course Outcomes (COs) with Programme Outcomes (POs), helping institutes track how effectively students are gaining required skills throughout the programme.

2.2 Industry expected outcomes in Addition to PSOs and POs

NBA in its latest guidelines (January 2019) has suggested 07 general POs (applicable for all Programs of Diploma in Engineering) and 2 to 4 Program Specific Outcomes (PSOs). In this curriculum there are 07 POs for each Program and about 3 to 6 COs in each course which sums up to about 150 COs in each Program .

Every industry expects the prospective employee to possess a few competencies / few skill sets which are stated as Industry Expected Outcomes. Industry expected outcome is generally a course specific single macro-level statement which indicates what the student can do in tangible terms at the end of the semester of a particular course. It is defined as cluster of skills encompassing the three domains of learning - cognitive, psychomotor and affective.

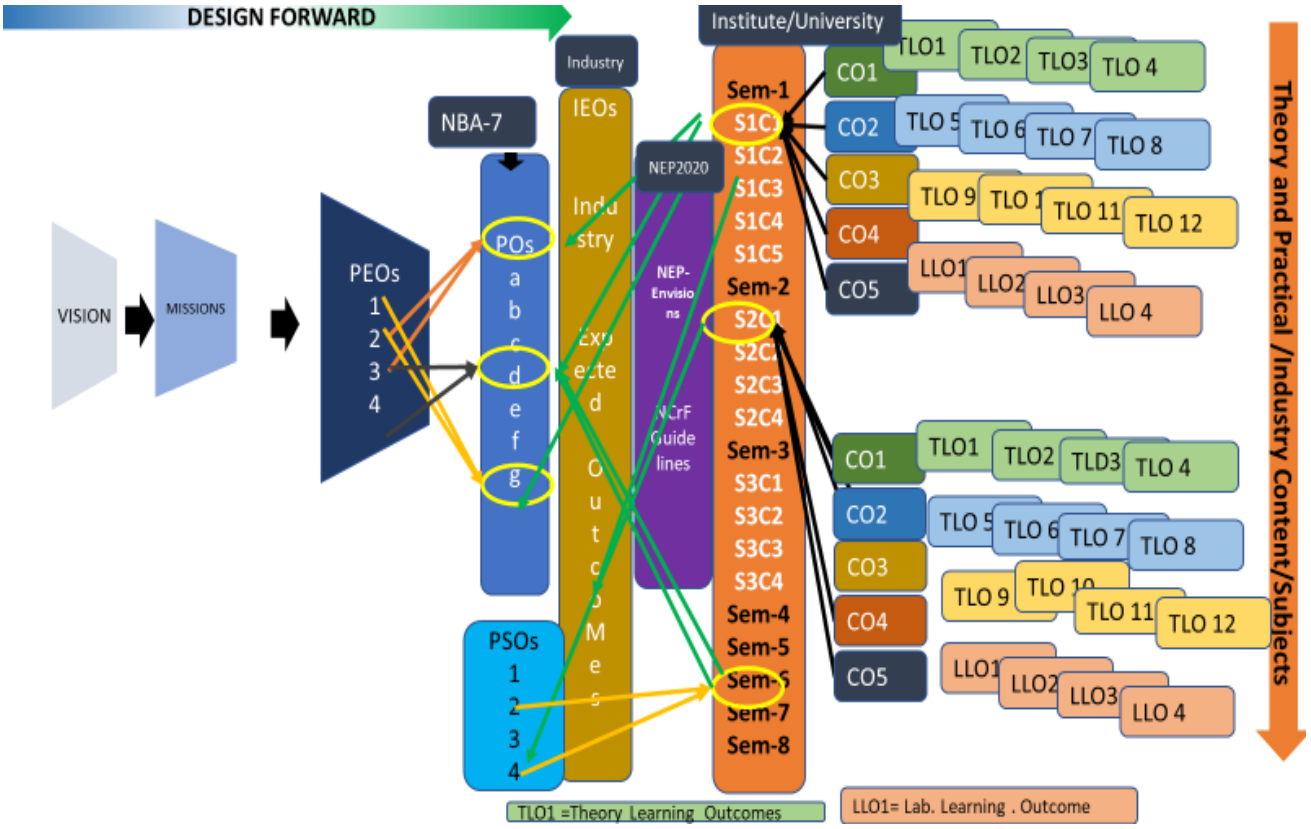


FIGURE 2.2- Design perspective of Curriculum

2.3 Curriculum Framework - The MSBTE K-scheme curriculum framework is designed to align with the National Education Policy (NEP-2020), emphasizing flexibility, multidisciplinary learning and holistic student development. This framework organizes courses into well defined categories and baskets inline with NEP-2020 and NCrF document to provide students with both foundational knowledge and specialized skills. The curriculum framework emphasizes on a multidisciplinary approach, blending science, engineering, technology, humanities, management, and vocational courses to provide broad-based education. It features a flexible structure with multiple entry and exit scheme, allowing students to choose from various course baskets and benefit from credit accumulation and transfer. Rooted in outcome-based education, it aims to develop cognitive, psychomotor, and affective domain skills with well-defined learning outcomes. The design ensures holistic development by integrating soft skills, ethics, entrepreneurship, and value-based learning, while industry feedback keeps the curriculum relevant to evolving professional needs and emerging technologies.

Course Baskets The MSBTE curriculum framework and its course basket system are designed to provide a flexible, multidisciplinary, and industry-relevant education. This approach empowers students to tailor their learning paths, develop a broad skill set and remain adaptable in a rapidly changing professional landscape. Courses are categorised into various structured Course Baskets under the National Credit Framework (NCrF) and NEP 2020-aligned curriculum. These course baskets are enlisted below –

Course Basket Name	Description
Discipline Specific Course (DSC)	It comprises of professional core courses, these focus on the foundational and advanced technical knowledge of the discipline, along with the development of specialized skills.
Discipline Specific Elective (DSE)	Elective courses offered as two elective baskets in the 5th and 6th semesters, enabling students to explore advanced topics or emerging areas within their discipline.
Ability Enhancement Course (AEC)	These are the courses that are aimed at improving communication, language, and general competencies. For Example, courses like- *Entrepreneurship Development and Start-ups, Seminar and Project Initiation, etc.*
Skill Enhancement Course (SEC)	These courses are aimed at strengthening practical and communication skills, including *Professional Communication, Engineering Workshops, etc.*
Value Education Course (VEC)	These courses are designed to build ethical, social, and managerial competencies, including *Social and Life Skills, Essence of Indian Constitution, Environmental Education and Sustainability, Management, etc.*
Internship/Project (INP)	These are Industry-integrated courses for experiential learning which include *-Internship, Capstone Project.*

2.4 Components of K Scheme Course Curriculum : Developing a course curriculum is crucial as it provides a structured roadmap for effective teaching and learning, aligning educational goals with student needs, societal demands, and industry expectations. Its components are designed to define clear learning objectives, maintain uniform learning standards, guide instructional methods and assessments, and enable continuous improvement based on feedback and evolving requirements. Following diagram depicts the ideology behind course curriculum development -

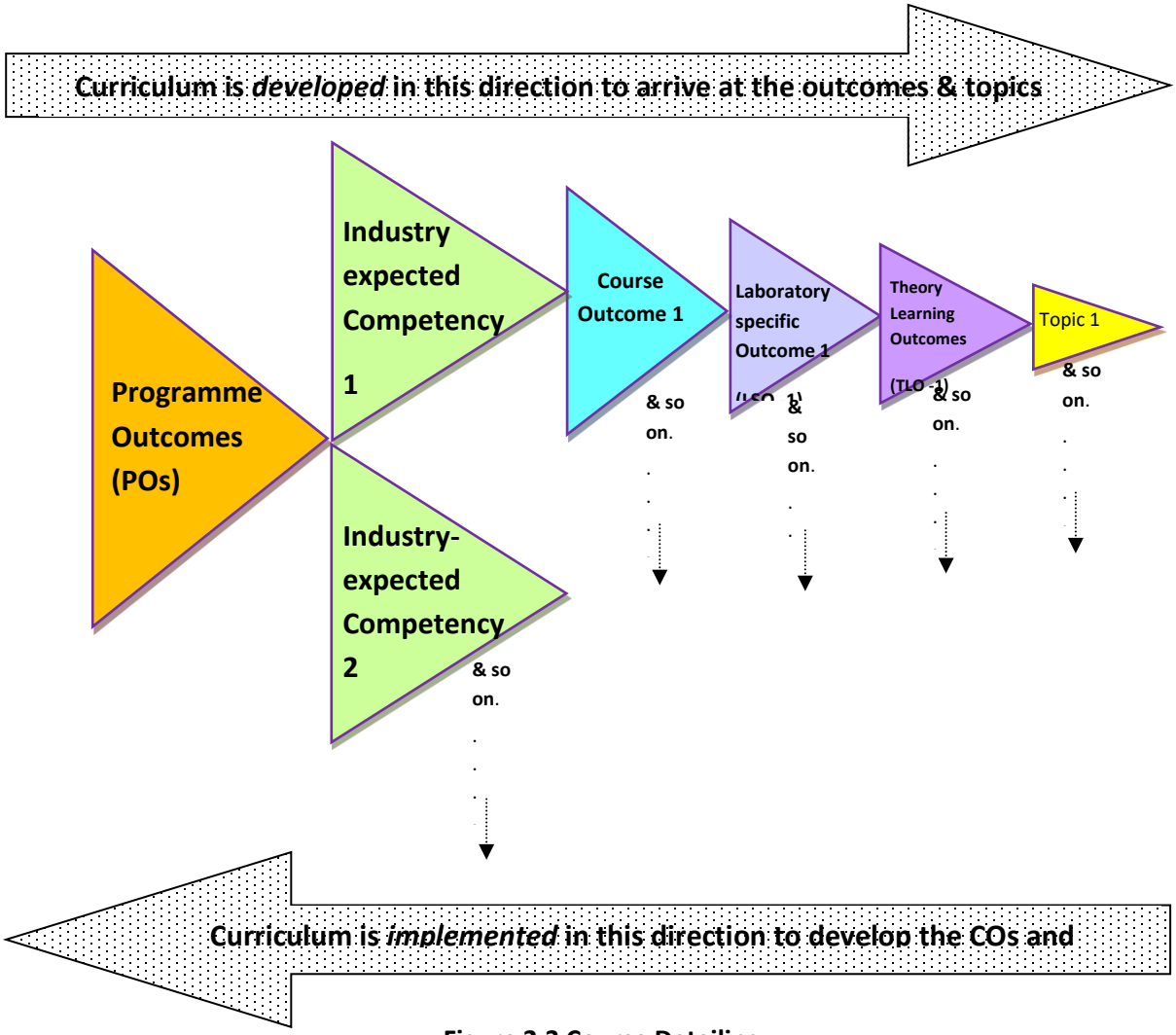


Figure 2.3 Course Detailing

Significance of components of K Scheme Course Curriculum -

2.4.1 Rationale - The Rationale statement in a curriculum document explains why the curriculum exists in its current form and why certain elements were included.

In other words, it may answer:

- Purpose: Why this course or program is needed.
- Relevance: How it meets student, industry, and societal needs.
- Context: The background or conditions that shaped the curriculum design.
- Alignment: How it fits with educational policies, standards, and institutional goals**.**

2.4.2 Industry/Employer Expected Outcome

Industry expected outcomes in K Scheme curriculum refers to core competency, comprising of specific knowledge skills, and professional attributes that students are expected to demonstrate after completion of the said course, as demanded and validated by industry stakeholders. By integrating industry input into curriculum design of MSBTE K curriculum it is ensured that diploma holders meet current technological trends and market requirements, making them more employable and capable of contributing to economic and technological advancement.

2.4.3 COURSE LEVEL LEARNING OUTCOMES (COS)

- Course Level Learning Outcomes (COs) are measurable and concise statements that define the specific knowledge, skills and abilities students are expected to acquire upon successfully completing a particular course within the MSBTE curriculum.
- COs guide faculties in planning lessons and assessments, help students and faculties to understand course expectations
- COs supports a systematic, outcome-based approach to education.
- Each CO is mapped to relevant POs/PSOs showing how course-level learning contributes to broader programme goals.

2.4.4 TEACHING-LEARNING & ASSESSMENT SCHEME

The Teaching-Learning & Assessment Scheme in the MSBTE curriculum is a structured framework that outlines how instructions and evaluation are organized to achieve the intended learning outcomes of each course.

a) Sample Teaching- Learning & Assessment Scheme

Course Code	Course Title	Abbr	Course Category/s	Learning Scheme					Credits	Assessment Scheme											
				Actual Contact Hrs./Week			SLH	NLH		Paper Duration	Theory				Based on LL & TL				Based on SL		Total Marks
															Practical						
				CL	TL	LL					FA-TH	SA-TH	Total		FA-PR		SA-PR		SLA		
											Max	Max	Max	Min	Max	Min	Max	Min	Max	Min	
312303	PROGRAMMING IN C	PIC	AEC	4	-	4	2	10	5	3	30	70	100	40	50	20	50#	20	25	10	225

Here, each course is defined by Course Code, Course Title, Course Abbreviation, Course Category representing the course basket.

b) Teaching- Learning Scheme includes actual contact hours per week distributed into -

i. Classroom (CL),

ii. Tutorial (TL),

iii. Laboratory Learning (LL) hours and

iv. Self-Learning Hours (SLH) – (Note SLH shall not be reflected in the Time Table)

c) Notional Learning Hours (NLH) are calculated as (CL + TL + LL + SLH) × 15 weeks for regular semester of 16 weeks.

d) 1 credit is equivalent to 30 Notional hrs. Credits for course calculated by formula -Credits=Notional Learning Hours/30. Internship credits are assigned in proportion of engagement hours/week.

e) The Assessment scheme includes –

i. Paper Duration in hours

ii. Distribution of Theory marks in Formative Assessment (FA- TH) and Summative Assessment (SA-TH). FA-TH averages of two 30-mark unit tests, while SA-TH (end-semester exam) carries 70 marks, totalling 100 marks.

iii. Distribution of laboratory marks in Formative Assessment (FA-PR) and Summative Assessment (SA-PR). FA-PR includes the continuous assessment of practicals, and SA-PR include end semester practical examination marks. If candidate is not securing minimum passing marks in FA-PR of any course then the candidate shall be declared as "Detained" in that semester.

iv. Self-Learning Assessment (SLA) includes micro project / assignment / case studies and other activities only for the courses with specified self-learning hours. Faculty is supposed to allot judicial mix of assignments

Note: If candidate is not securing minimum passing marks in SLA of any course, then the candidate shall be declared as fail and will have to repeat and resubmit SLA work.

v. Total marks of the course are calculated by addition of all the components of theory, practical and self-learning assessment (wherever applicable).

2.4.5 THEORY LEARNING OUTCOMES AND ALIGNED COURSE CONTENTS

The Theory Learning Outcomes (TLOs) define the knowledge and cognitive abilities that the students are expected to acquire through the theoretical components of each course. They are mapped to the appropriate theory content, ensuring a coherent progression from basic concepts to advanced understanding while directly supporting Course Outcomes (COs) and overall programme objectives. This mapping links each TLO to specific units, subtopics in the curriculum, enabling targeted teaching and precise assessment of intended competencies. Pedagogical methods including lectures, demonstrations, discussions, case studies, flipped classrooms and other innovative methods guide effective delivery and attainment of course contents.

2.4.6 LABORATORY LEARNING OUTCOMES AND ALIGNED PRACTICAL / TUTORIAL EXPERIENCES.

Laboratory Learning Outcomes (LLOs) are precise statements that define the practical knowledge and skills students are expected to acquire through laboratory sessions, tutorials, and hands-on activities. They ensure that lab work goes beyond procedural execution, fostering the ability to apply theoretical concepts in real-world contexts. Each LLO is mapped to the appropriate practical content and aligned with Course Outcomes (COs), enabling structured skill development that supports overall programme objectives. By providing clear guidance for planning and stepwise conduction of lab sessions, LLOs promote uniform skill attainment among students.

2.4.7 SUGGESTED MICRO PROJECTS / ASSIGNMENTS/ ACTIVITIES FOR SPECIFIC LEARNING / SKILLS DEVELOPMENT (SELF LEARNING)

a) Suggested Micro Projects, Assignments, and Self-Learning Activities are purposeful tasks designed to enhance student learning beyond classrooms and laboratories by fostering critical thinking, creativity, and real-world problem-solving while addressing individual skill gaps. Those focus on strengthening essential abilities such as communication, teamwork, digital literacy, and independent problem-solving, thereby building confidence in handling tools and applying concepts practically.

b) The faculty teaching the course has to design the activities to target specific areas where students need improvement, ensuring personalized skill development. These activities provide meaningful opportunities for students to develop and apply knowledge in real-world contexts. These self-learning activities contribute significantly in bridging academic and practical skills. Further, they cultivate lifelong learning habits, empowering students to pursue advanced studies and career growth.

c) The activity titles provided in the curriculum document are suggestive in nature. Faculty are expected to develop detailed activity statements, ensuring they are concise and can be completed within the stipulated hours specified in the scheme. In addition to the listed activities, faculty may design course-relevant activities independently. A bank of such activities should be maintained and periodically reviewed and updated by the faculty.

Following are the guidelines for development of Learning Activity Bank–

Microproject: The Bank of Microproject Statements serves as a curated repository of practical, real-life oriented, and application-based tasks designed to develop the technical skills, creativity, and problem-solving abilities of diploma students. These microprojects are aligned with the Course Outcomes (COs) of each course.

Microprojects encourage students to:

- Apply theoretical knowledge to solve contextual and real-world problems
- Enhance their self-learning, teamwork, and analytical thinking
- Explore interdisciplinary concepts through innovation and experimentation
- Develop technical documentation and presentation skills

  Each microproject in the bank is framed with:
- A clear title
- A problem statement
- Suggested resources and tools
- Expected outcomes
- Alignment with 2-3 Cos.

The statements are carefully designed to cater to students with varying levels of competence and creativity, allowing scope for customization and extension by faculty. Faculty are encouraged to periodically revise the micro project bank to reflect emerging trends, local industry needs, and new technologies.

This structured and flexible approach to microproject implementation not only enhances engagement in the learning process but also prepares students for professional challenges in a rapidly evolving technological landscape.

Case Studies: Case studies are an essential pedagogical tool to bridge the gap between theoretical learning and practical application. The Bank of Case Study Statements provides learners with real-life or simulated scenarios that require critical thinking, analysis, and decision-making based on course concepts and professional ethics.

These statements are developed to:

- Enable students to analyze complex situations.
- Develop competencies such as problem-solving, judgment, and communication.
- Foster an understanding of interdisciplinary approaches, social context, and professional responsibility.
- Enhance students' ability to evaluate multiple solutions and choose the most appropriate one based on given constraints.

Each case study is framed to include:

- A brief scenario or background
- A well-defined decision
- Guidelines for analysis and discussion
- Clear mapping to relevant Course Outcomes (COs).

The bank of case study statements is a dynamic resource, adaptable to the academic level of students and the evolving needs of industry and society. Faculty members are encouraged to use these statements during tutorials, group discussions, or internal assessments to promote active and experiential learning.

Assignments: Assignments are designed to encourage students to independently explore, understand, and apply the concepts taught in the classroom beyond prescribed textbooks. Assignments promote active engagement, foster critical thinking, and strengthen the habit of continuous and self-directed learning.

The purpose of these assignments is to:

- Reinforce and deepen conceptual understanding
- Promote the development of analytical and written communication skills
- Encourage individual responsibility for learning

Each assignment is designed in alignment with specific Course Outcomes (COs). The topics are chosen to allow learners of varying proficiency levels to explore and respond with creativity and originality.
These assignments form a part of the overall internal assessment and must be completed as per the guidelines provided by faculty. Students are expected to:

- Submit assignments within the stipulated time frame
- Follow academic integrity in their work
- Maintain records in their assignment books

Faculty will provide timely feedback, enabling learners to monitor their own progress and make necessary improvements. By engaging in these assignments, students become independent learners, better prepared for lifelong learning, professional challenges, and societal responsibilities.

Other Activities: Apart from Micro projects, Assignments and Case studies, the students may perform the following activities or the ones developed by course faculty for specific course.

- Presentations and peer teaching
- Industry-related exploration
- Completing online courses through MOOCs digital learning platforms.

Each activity is mapped to relevant COs and is structured to cater to diverse learning needs and levels of understanding. Learners are expected to complete the activities with sincerity and integrity, maintaining records as part of their continuous internal assessment within the time frame.

Faculty play a facilitative role by:

- Providing guidance and resources
- Reviewing and assessing submissions
- Offering constructive feedback to foster improvement

2.4.8 LABORATORY EQUIPMENT / INSTRUMENTS / TOOLS / SOFTWARE REQUIRED.

a) In this section of the curriculum, the suggestive list and specifications of laboratory equipment, instruments, tools, and software represent essential physical laboratory resources for effective practical teaching and learning in diploma engineering programmes. These resources enable students to learn through experiments, demonstrations and hands-on activities. Students perform practicals in laboratories using relevant laboratory equipments / instruments / tools / softwares. Using these tools students are able to perform testing, measuring, assembling, programming and simulating systems in relevant field. Modern and updated equipment familiarizes students with industry-standard technologies, improving their job readiness and meeting the aims of Outcome-Based Education (OBE) and NEP-2020, which emphasize skill-based, technology-integrated learning.

b) Institutes are encouraged to maintain flexibility, especially where **certain high end/ sophisticated machineries or setups** may not be available. To address these challenges institutes can consider following alternatives-

   i. arranging visits to nearby Polytechnics having necessary equipments and laboratory set-ups;
   ii. arranging visits to institutes of eminence like IITs, NITs etc. having equipments and laboratory set-ups;
   iii. arranging visits to relevant industries;
   iv. arranging visits to nearest ITIs with AR-VR facility;
   v. utilizing appropriate and available Virtual labs;
   vi. demonstration using related simulation videos.

These provisions ensure that students continue to obtain practical exposure.

2.4.9 SUGGESTED WEIGHTAGE TO LEARNING EFFORTS & ASSESSMENT PURPOSE (Specification Table)

The Specification Table forms an integral component of the Outcome-Based Education (OBE) framework, providing a structured mechanism for aligning teaching, learning, and assessment processes with the intended Course Outcomes (COs). It serves as a formal guideline for the systematic allocation of marks across various examinations and assessments, ensuring that evaluation practices remain transparent, balanced, and outcome-focused. By assigning specific Learning Hours to each unit of the curriculum based on its scope, complexity, and relevance, the Specification Table ensures efficient planning of delivering course contents. This structured allocation supports faculty in organizing teaching strategies effectively and assist students in prioritizing their learning efforts in accordance with the expected outcomes. As a part of the policy on curriculum implementation, the Specification Table ensures that academic delivery and assessment processes remain coherent, equitable, and directed towards measurable attainment of learning objectives. The specification table is the basis of designing of the question paper.

In the specification table, learning is divided into three levels using Bloom's Taxonomy:

- *R* for Remembering
- *U* for Understanding
- *A* for Application

Sample Specification Table

Sr.No	Unit	Unit Title	Aligned COs	Learning Hours	R-Level	U-Level	A-Level	Total Marks
1	I	Basics of 'C' Programming	CO1	10	4	4	4	12
2	II	Control structures	CO1,CO2	14	4	4	8	16
3	III	Arrays and structure	CO3	14	4	4	8	16
4	IV	Functions	CO4	14	2	6	6	14
5	V	Pointers	CO5	12	4	4	4	12
Grand Total				**64**	**18**	**22**	**30**	**70**

2.4.10 ASSESSMENT METHODOLODIES/TOOLS

In line with the principles of Outcome-Based Education (OBE), NEP-2020 and National Credit Framework (NCrF) the assessment framework incorporates both **Formative (Assessment during Learning)** and **Summative (Assessment of Learning)** methodologies to ensure a comprehensive evaluation of student learning.

Formative Assessment is designed to provide continuous feedback and support the ongoing learning process.

a. For theory courses, two-unit tests, each of 30 marks, are conducted, and the average of both tests is considered for an overall weightage of 30 marks.

b. For laboratory learning, formative assessment is carried out for the assigned marks for the particular course in the Teaching, Learning and Assessment Scheme wherein each practical activity is evaluated with 60% weightage assigned to the process and 40% weightage to the final product. This structure ensures fair appraisal of both the approach and the outcome, encouraging skill development, critical thinking, and procedural understanding.

Summative Assessment serves as an evaluation of learning at the end of the semester.

a) For theory courses, the end-semester examination carries a weightage of 70 marks, assessing the overall attainment of course outcomes.
b) For laboratory learning, the summative end-semester assessment is based on the marks assigned to a particular course in the curriculum document.

This dual-layered assessment methodology ensures that both the process of learning and its end results are systematically measured, fostering continuous improvement, mastery of concepts, and readiness for real-world application.

2.4.11 SUGGESTED COs-POs Matrix FORM

In accordance with the Outcome-Based Education (OBE) framework, Course Outcomes (COs) define the specific, measurable abilities that students are expected to acquire by the end of a course. Each CO clearly states what a learner should be able to do or demonstrate upon successful completion. Programme Outcomes (POs) articulate the broader knowledge, skills, and professional behaviours that students are expected to attain upon graduation from the programme. These outcomes represent the cumulative capabilities developed throughout the curriculum and are defined for all diploma engineering programmes in alignment with academic and industry standards. To ensure coherence between course-level and programme-level objectives, a CO–PO mapping matrix is maintained. This matrix establishes the degree of correlation of each CO with relevant POs on a defined scale of low, medium, or high, providing a structured mechanism to track the contribution of individual courses toward overall programme goals. Such systematic mapping is essential for monitoring outcome attainment and facilitating continuous quality improvement.

Note - The CO-PO matrix provided in the curriculum serves as a preliminary guideline; departments may modify it based on insights gained through actual teaching experience. However , programmes are required to prepare justification table on their own.

2.4.12 SUGGESTED LEARNING MATERIALS /BOOKS

Textbook & Reference books are included as learning material for K-Scheme curriculum. Learning materials from standard publications (ISBN) are helpful to students as well as faculty for teaching learning process. These books are recommended to be made available in institute's library (digital or hard bound form).

2.4.13 LEARNING WEBSITE & PORTALS

Learning websites are essential digital tools that enhance teaching and learning for students, faculty, and institutions. In the K-scheme curriculum, curated links to platforms like NPTEL/SWAYAM/ MOOCS, etc provide access to detailed course-specific videos and study materials. These portals enable anytime-anywhere learning, allowing students to strengthen concepts, practice problem-solving, and learn at their own pace. Faculty also benefit from updated teaching resources aligned with curriculum objectives. By integrating these platforms, the K-scheme promotes interactive, self-directed, and technology-enabled learning in line with NEP-2020.

2.5 DIPLOMA FOR WORKING PROFESSIONALS:

- Working Professionals are individuals with a minimum of one year of full-time, regular work experience in a registered industry or organization (Central/State Government), or in private/public limited companies or MSMEs, located within a 50 km radius of the institute.
- In alignment with the Maharashtra Government Resolution for direct second-year admissions, the AICTE APH 2024-25 guidelines, and the Information Brochure of the Directorate of Technical Education, MSBTE has initiated the affiliation process for institutions offering Diploma Programs for Working Professionals starting from the academic year 2024-25.
- Accordingly, specific guidelines and curriculum schemes have been developed under the F Scheme, which is the designated scheme for Engineering Diplomas for Working Professionals. All norms related to teaching-learning, assessment, and implementation, as outlined in the CIAAN 2023 document for the K Scheme, along with its prescribed formats, are fully applicable to these programmes.

(Annexure 2.3 : Working Professional guidelines,

Annexure 2.4 : Guidelines for Students admitted for Double Diploma under working professional)

3.0 CURICULUM IMPLEMENTATION & ASSESSMENT NORMS:

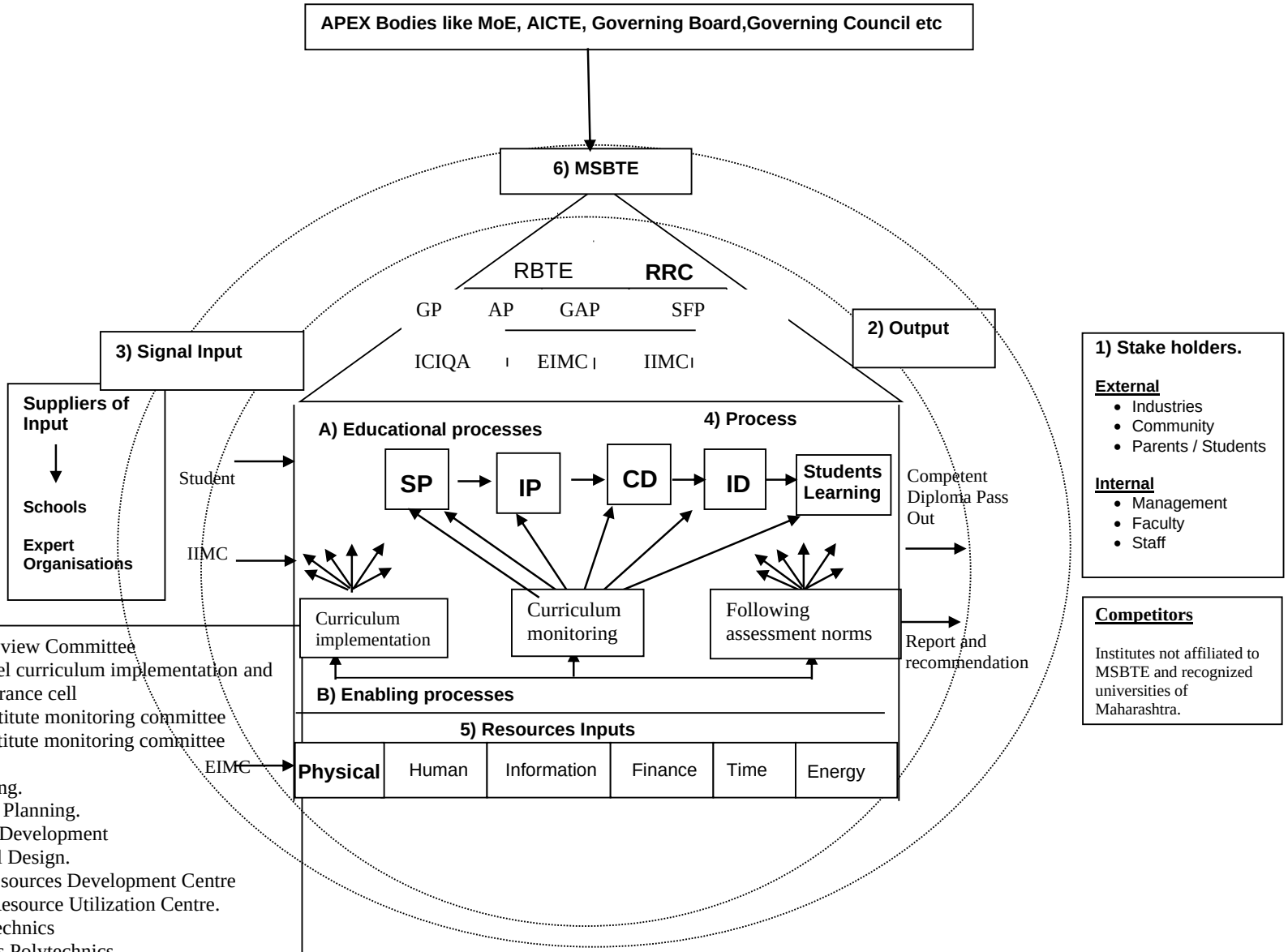
(In pursuant to clause 22 of Maharashtra State Board of Technical Education Act XXXVIII of 1997)

3.1 Approaches for Curriculum Implementation

The MSBTE has designed this K-scheme curriculum by adopting the model of Outcome Based Education (OBE) aligned with National Education Policy 2020 (NEP2020) wherein it develops three key attributes among graduates namely Knowledge, Skill and Behaviour. The same approach has been considered while implementing the curriculum.

The diagram depicts the following -

- The major stake holders of the system are industry and community that requires competent technical manpower.
- In order to have the desired outcome, curriculum implementation process should be well planned and executed.
- The diagram shows sequential learning process, from state level planning to student's meaningful learning.
- To carry out the educational processes, the enabling processes have been identified as shown in the diagram.
- To ensure effective curriculum implementation, the management structure has been proposed under the control of MSBTE such as RBTE, RCC, ICIQAC, EIMC and IIMC.
- The mechanism proposed will ensure the quality of the processes. This will be achieved through the monitoring carried out by EIMC and IIMC.
- In order to improve the relevance of graduates, the philosophy of outcome based education is implemented for ensuring the outcome rather than output. The diagram shows the outcome of this process.



RRC- Regional Review Committee
ICIQA -Institute level curriculum implementation and Quality assurance cell
EIMC - External Institute monitoring committee
IIMC - Internal institute monitoring committee

Abbreviations used

SP – State Planning.
IP – Institutional Planning.
CD – Curriculum Development
ID – Instructional Design.
LRDC –Learning Resources Development Centre
LRUC– Learning Resource Utilization Centre.
GP – Govt. Polytechnics
AP – Autonomous Polytechnics
GAP – Govt. Aided Polytechnics
SFP – Self Financing Polytechnics
RRC- Regional Review Committee
ICIQAC - Institutin curriculum implementation and Quality assurance cell
EIMC - External Institute monitoring committee
IIMC - Internal institute monitoring committee

FIG. 3.1 GENERAL SYSTEMS APPROACH FOR CURRICULUM IMPLEMENTATION

3.2 Norms and Strategies

3.2.1 Norms for Curriculum Implementation Process

3.2.1.1 Establish ICIQAC (Institution curriculum implementation and Quality assurance cell) in the institute and identify the faculty for the same.

3.2.1.2 ICIQAC shall prepare the curriculum implementation plan for the institute as a whole. Schedule of activities under the plan should be communicated to all the departments and also to the students wherever applicable.

3.2.1.3 Each department should prepare *session plan* of curriculum implementation.

3.2.1.4 Each faculty has to develop his/her instructional plan for lectures, practical and allied activities related to teaching.

3.2.1.5 Department has to maintain the record in the Prescribed Proforma to facilitate the internal and external monitoring.

3.2.1.6 The student's attendance shall be maintained as per the Government Resolution and MSBTE Regulations and informed to parents from time to time.

3.2.1.7 The performance of the students shall be displayed on the notice board after each progressive evaluation.

3.2.1.8 The faculty should make use of advanced teaching methods such as CAI packages, Self-developed power point presentations, Flash presentations, readymade presentation Internet etc. Preferably avoid dictation of notes. However, circulation of printed notes will be appreciated.

3.2.1.9 The focus in implementation should shift from Teaching to Learning.

3.2.2 Strategies for curriculum implementation:

3.2.2.1 State Level:

Academic committees of MSBTE through Expert committees will formulate the policies and guidelines and communicate the same to the regional offices and institutions.

3.2.2.2 Institute Level:

1. Principal through ICIQAC shall develop the plan of implementation for all the disciplines and follow uniform procedures as Directed by MSBTE time to time.

2. Principal through ICIQAC will analyze the feedback given by IIMC and EIMC and take remedial measures.
3. Principal shall arrange/propose training Programs for faculty and staff so that curriculum implementation is effective.
4. Principal through ICIQAC should establish the quality circle as a discussion forum to discuss the technologies/ learnings from faculty trainings. This activity can be conducted one week long once after each semester end.
5. Principal shall take periodic reviews of Departments w.r,.t. curriculum implementations and new practices adopted so as to promote them throughout the institute.

3.2.2.3 Departmental Level:

1. Head of the Department shall prepare *session plan* of implementation and take review of the progress once in month.
2. Head of the Department shall form DCIQAC (Department curriculum implementation and Quality assurance committee)
3. Head of the Department through DCIQAC shall ensure that the faculty prepares plans for classroom and laboratory instructions.
4. Head of the department through DCIQAC shall maintain all the records of implementation and assessment.
5. Head of the Department through DCIQAC shall analyse the performance of students in respect of class test, skill test and term end examinations. Suitable actions for improving the overall performance shall be taken by the department.
6. Head of the Department monitors and motivates faculty to use new age pedagogies. He/She should organise and preside over discussion sessions within faculty as well as technical staff to promote good practices in Department.

3.2.2.4 Individual (Faculty) Level:

1. The course faculty- regular / Adhoc / contract / visiting shall prepare the session plan for class room sessions and practical sessions.
2. The course faculty shall select appropriate methods of instructions to ensure meaningful learning.

3. The course faculty shall follow the philosophy of Curriculum Design and implement it in the same spirit. It is expected that there will be shift from teaching to learning of students.

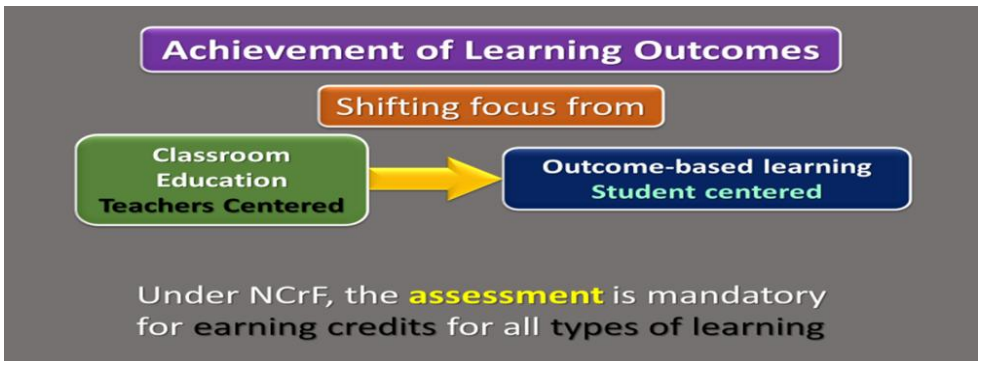


FIGURE 3.2

4. The Lesson plan forms an important tool for delivering the contents during teaching learning process. Hence every faculty is expected to appreciate this concept and accordingly prepare lesson plan for a given subject and implement.
5. The course faculty shall use the self-feedback from the concerned proforma for improving instructional methods and self-development.
6. To inculcate the self-learning ability in students, faculty shall understand thoroughly and use flipped classroom pedagogy at least for 2-4 contact hours of the course effectively.
7 Considering the following traits of Gen Alpha kids (those born between 2010–2025)—highly tech-savvy, more diverse, extensively exposed to digital media, and influenced by AI and online content—faculty should adapt to blended learning classroom experiences to better capture their attention and make learning more engaging. For example, the use of tools like interactive simulations, gamified learning platforms (such as Kahoot! or Quizizz), AI-driven personalized learning apps, virtual reality modules, and collaborative platforms like Google Classroom or Microsoft Teams can significantly enhance student participation and understanding.

3.3 Mechanism for Curriculum Implementation

Fig. 3.3 shows the structure of curriculum implementation mechanism. The salient features of the mechanism are as follows.

Academic committee will be responsible for formulating the policies, providing the resource support and guidance to the institutions, carry out the research and suggest the remedial measures in solving the problems.

1. Institution curriculum implementation and Quality assurance cell (ICIQAC) shall be set-up in every polytechnic. This unit will be responsible for institutional planning, monitoring curriculum implementation and to maintain the records.
2. External Academic Monitoring Committee (EIMC) - In order to ensure proper implementation of the curriculum, a committee will be formed. The members of the committee will be from other institutions.
3. Internal Academic Monitoring Committee (IIMC) - The ex-officio members of the ICIQAC will form the committee for internal monitoring. This committee is expected to follow the guidelines provided by Academic Committee through MSBTE and ensure its implementation for all the departments in the institute.

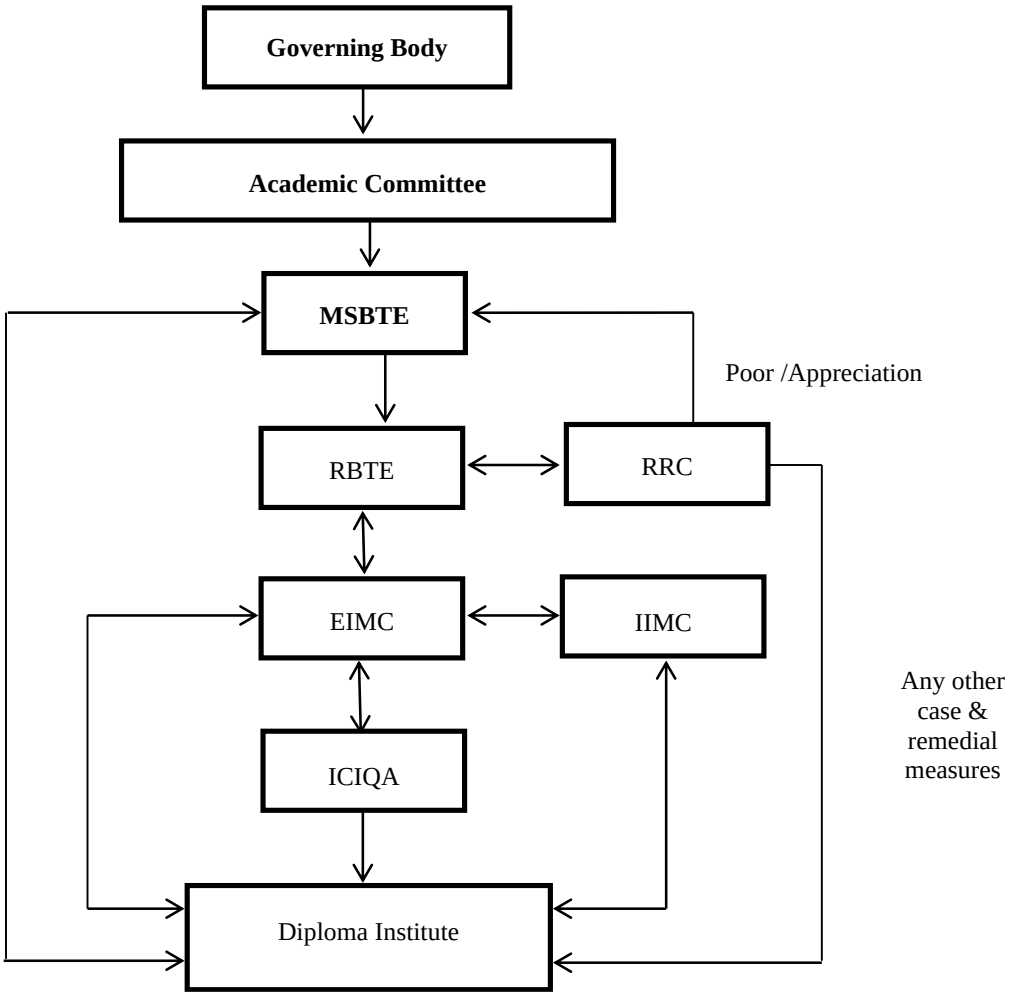


Fig. 3.3 Structure of Curriculum Development and Implementation Mechanism Flow Diagram

1. **RRC : Regional Review Committee.**
2. **EIMC : External Institute Monitoring Committee.**
3. **ICIQAC : Institution curriculum implementation and Quality assurance cell.**
4. **IIMC : Internal Institute Monitoring Committee.**

3.3.1 INSTITUTE LEVEL CURRICULUM IMPLEMENTATION AND QUALITY ASSURANCE COMMITTEE (ICIQAC)

3.3.1.1 Structure of ICIQAC

The organizational structure of ICIQAC will comprise of the following officials –

1.	Principal / Management representative*	Ex-officio Chairman
2.	H.O.D.	One from each Dept. Ex-officio.
3.	Representative from institutes teaching staff (To be nominated by the principal)	Member (2 numbers)
4.	Academic Co-ordinator, (HOD / Sr. lecturer)	Ex-officio Member Secretary
5.	Student representative (Final year)	Members (2 Numbers) (One female and one male to be nominated by the principal)
6.	Parents Representative	(Three parent FY/SY/TY) (To be nominated by the principal)

Note - * For Govt. / Govt. aided Institution the Principal of the Institution shall be Chairman of ICIQAC and for Unaided Institutions the Management Representative shall be the Chairman of ICIQAC and Principal shall then be an additional Ex-officio member of ICIQAC.

3.3.1.2 Roles and Responsibilities of ICIQAC

1. Study Curriculum development process and prepare curriculum implementation plan at institute level.
2. Identify the resource gaps at institute level and develop plan to make up the deficiencies.
3. Plan for Academic Calendar of the institute taking into consideration the calendar from MSBTE.
4. Guide the departments regarding the philosophy of curriculum design and its implementation.
5. Ensure uniform implementation of MSBTE norms for student assessment.
6. Analyse the reports of internal and external monitoring committees and take remedial action.
7. Maintain the records of all activities in the Prescribed Proforma.
8. Organise and conduct discussion forum as part of quality circle at least once at the end of each semester to discuss the outcome of faculty trainings (Industrial/FDP), record and circulate minutes about the same.

3.3.1.3 Terms of Reference

1. Ex-officio members are permanent members.
2. All external members will be by rotation.
3. The term of external members shall be for minimum 1 year and maximum 3 years.
4. ICIQAC will meet at least once in 6 months.
5. Academic co-ordinator will prepare the agenda; maintain the minutes of the meeting and prepare the action taken report.
6. Minimum quorum shall be half the number of members +1.

3.3.1.4 Roles and Responsibilities of Principal / Management Representative.

The institute is responsible to ensure effective implementation of curriculum. MSBTE has decided to establish ICIQAC in each institute that will help the Principal to focus on academic activities in line with the philosophy adopted by MSBTE. The principal of the institute will be the chairman of ICIQAC where there is no representative of management. In this context the roles of the Principal as Chairman, ICIQAC are as follows;

1. Establish a separate cell in the Institute to plan, implement and monitor the progress of curriculum implementation.
2. Provide infrastructure facilities to the identified Academic Co-ordinator such as space, computer and one clerical staff.
3. Conduct meetings of the heads of Department and faculty to ensure smooth functioning of ICIQAC.
4. Provide guidance to support the Academic Co-ordinator and monitor the activities therein.

Note: In the cases of unaided institutes where the management representative will act as the Chairman of ICIQAC, the Principal will assist the Chairman in functioning of ICIQAC.

3.3.1.5 Role and Responsibilities of Academic Coordinator

It is desirable to have uniform policy and procedures for all the departments in the institute while implementing the curriculum. Academic co-ordinator is a key person to decide and adopt uniform procedures. The Role and responsibilities of academic co-ordinator are listed below.

1. Get acquainted with the philosophy of curriculum implementation and develop insight regarding theories of learning, systems thinking and theories of knowledge.

2. Arrange the meeting of all faculty to elaborate the philosophy and the approach of curriculum implementation. Initially more guidance to the faculty who are implementing laboratory manuals, using CAI packages and arranging the activities for developing generic skills.
3. Study and explain the different proforma developed and prescribed by MSBTE.
4. Maintain the record of all the activities in ICIQAC.
5. Identify the problems occurring regarding curriculum implementation.
6. Formulate the remedial measures through discussion with principal and HOD.
7. Identify the common resources required for implementing the curriculum and facilitate the same in consultation with Heads of the Department and Principal.
8. Arrange the meetings of ICIQAC, initiate the discussion forum and maintain its record.
9. Coordinate the process of IIMC, maintain record and submit report of findings to Principal.
10. Provide facilities to EIMC.

10 Identify needs of training for supporting staff and faculties and communicate the same to MSBTE. Additional training shall be organized locally as per needs.

11 Encourage the faculty to contribute in various projects undertaken by MSBTE e.g. learning resource development print and non-print.

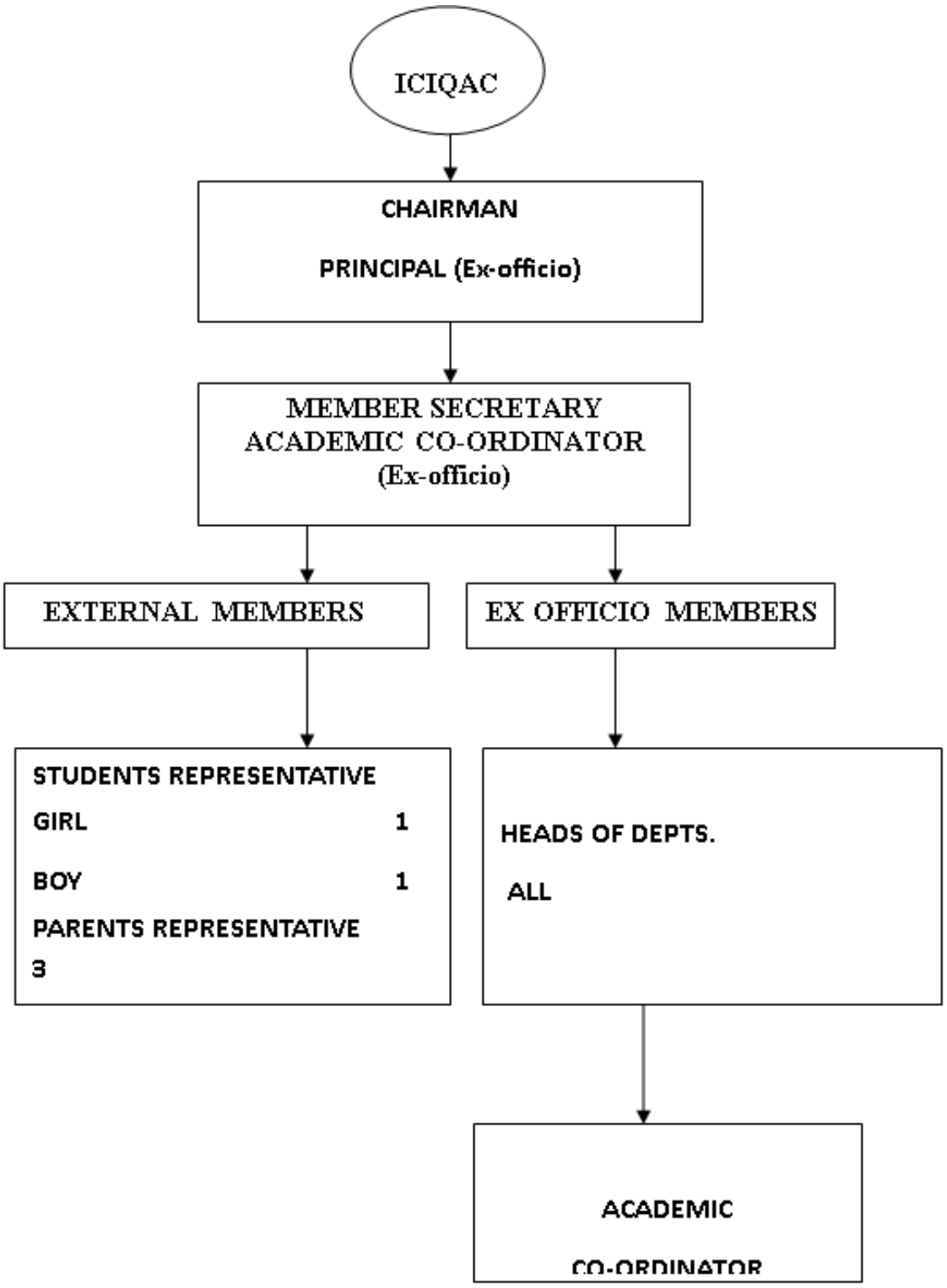


Fig. 3.4 Graphical structure of ICIQAC

4.0 Committees for Monitoring Curriculum Implementation

4.1 Regional Review Committee (RRC)

4.1.1 Structure of RRC

The organizational structure for RRC will comprise of following officials.

Sr. No.	Designation	Title
1	Jt. Director of Respective Region	Ex-officio Chairman
2	Dy. Secretary RBTE	Ex-officio Member Secretary
3	Representative From institute	Principal from AICTE Institute- 01 Principal from Non AICTE Institute - 01 Principal from Pharmacy Institute - 01 HOD/selection grade lecturer - 01

4.1.2 Roles of Regional Review Committee (RRC)

1. Discuss the report received by EIMC and verify that the monitoring is done as per the norms decided by MSBTE time to time. (At present Annex-I)
2. Suggest remedial measures to the institutes.
3. Give recommendations to the MSBTE regarding Institutes to be de-affiliated.
4. Give recommendations to the MSBTE regarding institute to be given letter of appreciation.

4.1.3 Structure of IIMC and EIMC: -

A) Structure of IIMC: (A committee of at least three members will monitor one Department)

1.	Principal / Management representative	: Chairman and Ex-officio
2.	Heads of Departments	: (As per the no. of Programs)
3.	Representative from faculty	: Two Members
4.	Academic Co-ordinator.	: (Identified HOD / Sr. Lecturer) Member

B) Guidelines for the formation of EIMC Committee: -

For AICTE Institutes: -	Selection Criteria & Sequence of Selection
Chairman (Principal of AICTE Institute)	Principal / In charge Principal, of Government / Aided Institutes.
	OR HOD of Government / Aided Institute /Selection Grade Lecturer in Government Institute
	OR Principal of Private Institute having Teaching / Industry Experience more than 10-15 years.
Member 1: - (H.O.D / Selection Grade Lecturer of AICTE Institute)	HOD / Selection Grade Lecturer of AICTE Institute (Government / Aided) OR HOD of Private Institute having Teaching / Industry Experience more than 10 years.
Member 2 … Member N (Sr. Lecturer of AICTE Institute)	Lecturer preferably from Government / Aided/ Institute of AICTE Institute having Experience more than 05 years.

Note: Total members should be same as total Programmes to be evaluated and monitoring committee shall comprise of members from programmes eligible for monitoring.

For Pharmacy Institutes: -	Selection Criteria & Sequence of Selection
Chairman (Principal / HOD of PH Institute)	**Principal /** HOD of PH Institute (Government**,** Aided)
	OR Principal of Private Institute having Teaching / Industry Experience more than 15 years.
Member 1: - (Sr. Lecturer of PH Institute)	Lecturer from Government / Aided Institute whose Teaching/ Industry Experience is more than 05 years.

For Non- AICTE Institutes: -	Selection Criteria & Sequence of Selection
Chairman (Principal / HOD of AICTE Institute)	**Principal /** HOD/selection grade of AICTE Institute (Government**,** Aided)
	OR Principal of Private Institute having Teaching / Industry Experience more than 15 years.
Member 1: - (Lecturer of Non AICTE Institute)	Lecturer from Non AICTE Institute who's Teaching/ Industry Experience is more than 05 years.

4.2 Norms for Monitoring

1. IIMC and EIMC shall follow the criteria and sub criteria wise marking system given in Part B: Evaluation Criteria.
2. IIMC shall carryout monitoring based on the Part B: Evaluation Criteria once in each semester prior to the visit of EIMC.
3. Institutes established/ Program(s) commenced during last five years w.r.t. current academic year shall be monitored by EIMC twice in a year. i.e. in both semesters.
4. Institutes established/ Program(s) commenced earlier than five years w.r.t. current academic year shall be monitored by EIMC once in a year. i.e. in even semester.
5. RBTE through RRC will review the reports submitted by EIMC and will convey the remarks, suggestion for improvement to the institutes. RRC shall recommend to the MSBTE, the nature of action to be taken on the institutes.
6. MSBTE will take action based on the recommendation of RRC.

4.2.1 Strategies of Monitoring

1. Institute shall fill information in the online monitoring software developed by MSBTE and needs to be revised the same from time to time.
2. EIMC shall visit the institute / department(s) running the Program(s) and verify the correctness of information submitted online. The evaluation by EIMC shall be as per Part B: Evaluation Criteria and EIMC shall also provide appropriate remarks / comments in the online software.
3. Members of EIMC shall provide guidance to the faculty for improvement during exit meeting.
4. The evaluation format shall be filled online by EIMC in the institute monitored and report shall be countersigned by the Principal / Head of the department of the monitored institute.

5.0 Student Assessment Guidelines

The Maharashtra State Board of Technical Education (MSBTE) has implemented the "K Scheme" curriculum for diploma engineering programs, aligning with the National Education Policy (NEP) 2020. This scheme emphasizes Outcome-Based Education (OBE), holistic assessment, and skill development to enhance students' employability.

5.1 Philosophy of Assessment

The K Scheme follows a comprehensive, outcome-oriented assessment approach based on the following principles:

1. Outcome-Based Education (OBE):
   Focus on measurable learning outcomes aligned with industry expectations to enhance employability.
2. Continuous and Comprehensive Evaluation:
   Assessment includes formative (continuous) and summative (end-semester) components, covering theory, practicals, and self-learning activities to track overall student progress.
3. Skill Development and Practical Exposure:
   Integration of hands-on learning through laboratory work, project-based learning, and internships to bridge theory with practice.
4. Integration of Learning Domains:
   Evaluation covers Cognitive (knowledge), Psychomotor (skills), and Affective (attitudes/values) domains for holistic development.
5. Flexibility and Personalization:
   The credit-based curriculum and elective options support personalized learning paths aligned with students' interests and career goals.

Key Components of the K Scheme Assessment

a) **Formative Assessment (FA):** Formative Assessment is a continuous evaluation process used during the learning phase to monitor students' progress, provide feedback, and improve learning outcomes. Formative assessment is assessment for learning rather than just assessment of learning. It tracks how well students are learning during the course, helps identify strengths and gaps, and guides teachers to provide timely support.

Key Features of formative assessment -

1. Continuous & Ongoing:
   Conducted throughout the semester, not just at the end.
2. Diagnostic Purpose:
   Identifies learning gaps and helps teachers adjust teaching strategies.
3. Feedback-Oriented:
   Provides constructive feedback to students for improvement.
4. Learner-Centric:
   Encourages active participation and self-reflection in the learning process.
5. Linked to Course Outcomes (COs):
   Measures how well students are achieving specific learning outcomes.

Examples

- Class Tests / Unit Tests
- Assignments or Problem Sheets
- Micro Projects / Mini Projects
- Quizzes or Viva Voce
- Practical Skill Demonstrations / Lab Work Evaluations
- Surveys or Case Studies

In MSBTE's K Scheme, for example:

- Formative Assessment for Theory (FA-TH) = 2 internal tests (30 marks each, average counted).
- Formative Assessment for Practical (FA-PR) = Continuous lab evaluation of skills, journal, and viva. Process and Product based Evaluation.

b) Summative Assessment (SA): Summative Assessment is an evaluation method conducted at the end of an instructional period (semester, unit, or course) to measure how much a student has learned and achieved against the defined learning outcomes or course objectives. In simple terms, it is assessment *of* learning, whereas formative assessment is assessment *for* learning.

Key Features of Summative Assessment

1. End-of-Instruction Evaluation:
   Conducted after completing a unit, module, or semester.
2. Cumulative Nature:
   Measures the total knowledge, skills, and competencies acquired.

3. Grading & Certification Purpose:
   Used to award grades, certify competency, or decide progression.
4. Linked to Course Outcomes (COs):
   Evaluates whether the intended learning outcomes of the course have been achieved.
5. Standardized & Formal:
   Typically involves structured exams, practicals, or projects assessed with clear marking schemes or rubrics.

Examples in Technical Education (MSBTE K Scheme)

- End-Semester Theory Exam (SA-TH):
  70 marks, testing knowledge, understanding, and application.
- Practical Examination (SA-PR):
  Conducted at the end of the semester to evaluate hands-on skills, lab performance, and viva.
- Final Capstone Project Evaluation:
  Comprehensive assessment of problem-solving and application skills.

Key Difference between Formative Assessment and Summative Assessment

Aspect	**Formative Assessment (FA)**	**Summative Assessment (SA)**
Purpose	Improve learning (diagnostic)	Evaluate final learning (certification)
Timing	Continuous during learning	At the end of term/semester
Feedback	Immediate & ongoing	After completion of course
Impact on Grades	Usually, partial contribution	Major contributor to final grade

5.2 Assessment Structure (Norms)

5.2.1 Norms for Theory Learning (Class room Learning) Assessment

The goal is to measure achievement of Course Outcomes (COs) using Revised Bloom's Taxonomy, ensuring measurement of knowledge, understanding, application and skills to promote outcome-oriented, meaningful, and lifelong learning.

Assessment Pattern: 30–70 Model (100 Marks)

- Formative Assessment (FA-TH): Two internal tests of 30 marks each; average contributes to 30 marks .
- Summative Assessment (SA-TH): 70-mark end-semester theory or online exam conducted by MSBTE.

5.2.1.1 Formative Assessment of Theory Learning (FA-TH)

In pursuit of academic excellence, Formative Assessment plays an important role in shaping the learning experience. FA-TH is conceived as a continuous learner centric approach designed to monitor and support theoretical learning progress. It helps in identifying learning gaps early and encourages continuous improvement. The assessment is to be aligned with course outcomes.

Formative Assessment (FA-TH) Norms:

- Continuous learner-centric evaluation throughout the semester.
- Identify learning gaps early and provide corrective measures.
- Assessment strictly aligned with COs.

5.2.1.2 - Summative Assessment of Theory Learning (SA-TH) –

a. Prepare the question paper by using different levels of Bloom's Taxonomy. Make sure the question paper follows the specification table given in the curriculum.
b. Each question must be linked to the relevant Course Outcomes (COs) mentioned in the curriculum.
c. Summative Assessment of Theory Learning as per guidelines provided by MSBTE from time to time.

5.2.2 Norms for Practical Assessment-

- **Practical Assessments (FA-PR):** Practical performed by students are continuously assessed in the laboratory based on the proper understanding of the concept, skill and the overall affective domain developed by the students. The marks allocated are as per the Learning Assessment scheme of the course.
- **Practical Assessment (SA-PR)**: Practical Exams are conducted at the end of the semester and scores are awarded as per the performance of the students in knowledge and skill. The marks are allocated are as per the Learning Assessment scheme of the course

To evaluate hands-on skills, understanding of practical concepts, and application of knowledge.

a. Each practical should be linked to the related Course Outcomes (COs).
b. Practical assessment should include the student's performance in the lab, journal completion, viva questions, and proper record keeping.
c. Practical should be evaluated using a fixed marking scheme, giving marks for steps followed, accuracy of work, final result, and how well the work is presented.
d. Evaluation should be done based on Rubrics mentioned in lab manual.

5.2.2.1 Formative Assessment of Practical (FA-PR) - Practical Competency is a vital aspect of student learning. The Formative Assessment for practical (FA-PR) is structured to ensure continuous

evaluation of student's Psychomotor skills and application of knowledge in laboratory. Assessment of FA-PR encourages active participation, and build essential technical proficiencies aligned with course outcomes and Laboratory Learning Objectives. It emphasizes performance improvement throughout the semester progressively.

5.2.2.2 Summative Assessment of Practical (SA-PR) -The Summative Assessment of Practical is a critical component of the overall evaluation process, designed to assess a student's ability to apply theoretical knowledge in a hands-on environment. It provides a comprehensive confirmation of the learner's skills, competencies, and understanding acquired throughout the semester during practical sessions.

This assessment ensures that students:

- Demonstrate proficiency in performing practical tasks related to the curriculum.
- Follow standard procedures and safety norms in laboratory or workshop settings.
- Exhibit analytical thinking and problem-solving skills while interpreting results or troubleshooting tasks.
- Communicate inferences effectively

5.2.3 Norms for Self-Learning Assessment (SLA) –

Self-learning activities include micro-projects, assignments, and other independent learning tasks assigned to students. These are designed to cultivate self-direction, analytical skills, and application of course learning outcomes. SLA hours are part of the **notional learning hours** calculation alongside Classroom Learning (CL), Lab/Workshop (LL), Tutorial (TL), etc. **Self-Learning hours are not to be shown separately in the institute's timetable**. Self-learning activities shall be a judicious blend of activities specified in the curriculum and those additionally designed by individual faculty members and SLA is a **continuous process**, with assessments conducted periodically throughout the semester.

Theory	Practical	Self-Learning
FA-TH is of 30 marks SA-TH is of 70 marks	FA-PR	SLA
Total of 40 (FA-TH+SA-TH) marks is required to pass the course.	Failure to submit practical work and secure minimum passing marks in practical assessments shall result in detention in the course.	Failure to submit SLA work and secure minimum passing marks in SLA may result in failure in the course.

Note: For more clarification refer RG-9(Assessment of Term Work / Sessional / Practical / Project Work / Oral/ any other Head)

5.3 Students Performance Evaluation- The objective is to ensure that students acquire not only academic knowledge but also develop technical, interpersonal, and professional skills required in the industry. The institute is expected to demonstrate initiatives taken to support slow and advanced learners, bridge learning gaps, and track student performance trends for continuous improvement. The main aim is to assess the effectiveness of academic planning, teaching methodologies, and support systems in improving learning outcomes using following indicators.

a. Success Index (SI) – it measures the pass percentage of students relative to enrolment, reflecting academic success.
b. Academic performance Index (API) – it assesses the overall academic achievement through average marks.
c. Placement Index (PI)- It indicates the effectiveness of the institution's efforts in securing employment or higher education opportunities for the students.

5.4 Assessment Norms and Rubrics for Courses with Internships, Projects, Seminars, Social and Life Skills, etc. -

I. Each Diploma Programme includes courses such as Internships, Projects, Seminars, and Social and Life Skills. The respective curriculum document provides the course contents, detailed guidelines, assessment norms, and evaluation rubrics. All faculty shall strictly follow the prescribed formats and rubrics specified in the curriculum documents for the respective courses to ensure uniformity and transparency in evaluation.

II. For the course titled Social and Life Skills, along with the curriculum follow the Guideline Document for Social and Life Skills **(Annexure 5.1)** for course implementation.

III. For Specialized Programmes with 16-Week Internships -

a. Students shall undergo internships for the entire semester, by adhering to the guidelines and assessment norms specified in the curriculum document.

b. The accompanying **Seminar Course** shall be conducted in online mode through periodic review sessions. The final seminar presentation may be delivered individually by students in either online or offline mode, preferably on working Saturdays. The department shall prepare a detailed timetable for seminar presentations and conduction.

c. For the **Project Course**, which is to be completed concurrently with the 16-week internship, the following approach shall be adopted:

i. A group of 3–6 students, under the guidance of a faculty mentor and with the consent of the industry, shall identify a problem statement at their workplace and undertake it as a project, following the guidelines and assessment norms specified in the curriculum document.

OR

i. Students may undertake an **external project**, utilizing college resources on Saturdays or industry-off days. Periodic reviews shall be conducted, at least once a month in offline mode and otherwise through online sessions.

ii. Final demonstrations and presentations shall be conducted at the institute in the presence of an External Examiner.

5.5 Guidelines for Conduction of Summative Practical Examination of course FUNDAMENTALS OF ICT (311001)

- It is a computer-based assessment.
- Examiner shall set the task for 25 marks.
- Candidate shall perform the task on Computer.

  Candidate shall save the file with his seat number of examination.

- Record of all candidate wise tasks done on computer appeared for examination to be saved in a

Common folder. The name of folder should be as per given guidelines i.e.

<Academic Year>_<Course Code>_<Date of Exam>_<Batch No.>

For Example: - 23-24_311001_25/11/2023_B1

- Preserve the folder as per MSBTE Examination regulations.

PART B – PROFORMA

Preamble

The proformas provided herein are designed to standardize the maintenance of academic records for Diploma Engineering education. Their primary objective is to ensure uniformity and consistency in assessment across the state. These proformas are developed in coherence with the NBA accreditation process and aim to eliminate redundant work for staff in maintaining records. MSBTE will, in due course, link these proformas in phases with the existing data of students and faculty, thereby minimizing manual data entry and numerical calculations.

The faculty holding respective portfolios shall be entrusted with the responsibility of maintaining the proformas related to their portfolio and the data therein for each semester, as applicable. Each course faculty shall maintain the teaching and laboratory/tutorial plans in their respective course files. The Head of Department shall oversee and allocate these responsibilities accordingly.

These proformas serve as a comprehensive guide for faculty and administrative staff to maintain accurate and organized documentation, thereby enhancing transparency and accountability throughout the academic process.

PART – B1: PROFORMAS FOR "K" SCHEME (Engg. Diploma)

Index		
Sr. No.	**Format No**	**Particulars**
1.	K1	Teaching Plan (TP)
2.	K2-A	Laboratory Plan (LP)
3.	K2-B	Tutorial Planning
4.	K3	Formative Assessment of Practical (FA-PR)
5.	K4	Summative Assessment of Practical (SA-PR)
6.	K5	Formative Assessment of Theory (FA-TH)
7.	K6	Self-Learning assessment (SLA)
8.	K7 (Part-A)	Analysis of FA-TH Test 1 / Test 2 Result
9.	K7 (Part-B)	Analysis of Term End Examination Result
10.	K7(Part-C)	FA_TH AND SA_TH ANALYSIS
11.	K7(Part-D)	Success Index (SI)
12.	K7(Part-E)	Enrolment Ratio
13.	K7(Part-F)	Academic Performance Index (API)
14.	K7(Part-G)	Placement Index (PI)
15.	K8	Details of Industrial Visit / Vocational Training
16.	K9	Details of Expert Talk
17.	K10(Part-A)	Details of Placement
18.	K10(Part-B)	Student Placement Details
19.	K11	Details of Faculty / Staff Training
20.	K12	Details of Resources Development
21.	K13	Details of Co-Curricular Activity
22.	K14	Details of Extra-Curricular Activity
23.	K15	Student Feed Back
24.	K16	Laboratory Details
25.	K17	Other Facilities Details

For AICTE Diploma Engineering Courses wef - 2023-24

Maharashtra State Board of Technical Education

TEACHING PLAN (TP)

Institute Name:

Academic Year

Programme: Course: Course Code:

Semester:

Unit No. (Allocated Hrs.)	CO (Mention only Number)	TLO aligned to CO's	Title / Details *	Plan (No. of Lectures)		Actual Execution (From - To & No. of Lectures)		Pedagogy used (Teaching Method / Media)	Remarks (Topic complete / Deviation) And Details Given for self-learning /Contents beyond curriculum/IKS)
				From	To	From	To		

Signature of Faculty Signature of HoD

Name Name

*The faculty is supposed to mention the details of Topic & Subtopics.

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LABORATORY PRACTICAL PLANNING

Institute Name:
Academic Year
Programme: Course: Course Code:
Semester: Batch: A / B / C

Sr. No.	LLO	Practical Title / Tutorial Title	Planned Date	Performance Date	Remarks	Related self-learning (if any)

(Faculty shall add here list of additional practicals i.e. practicals not suggested in curriculum)

Signature of Faculty
Name:

Signature of HoD
Name:

K2-B (TUT)

For AICTE Diploma Engineering Courses wef - 2023-24

Maharashtra State Board of Technical Education

TUTORIAL PLANNING

Institute Name:

Academic Year

Programme: Course: Course Code:

Semester: Batch: A / B / C

Sr. No.	LLO	Practical Title / Tutorial Title	Planned Date	Performance Date	Remarks	Related self-learning (if any)

(Faculty shall add here list of additional practicals i.e. practicals not suggested in curriculum)

Signature of Faculty
Name:

Signature of HoD
Name:

For AICTE Diploma Engineering Courses wef - 2023-24

Maharashtra State Board of Technical Education

FORMATIVE ASSESSMENT OF PRACTICAL (FA-PR)

Institute Name:

Academic Year Exam: Winter / Summer…….

Programme: Course: Course Code:

Semester:

Roll No.	Enrollment No.	Exam Seat Number	Name of the Student	Practical / Tutorial (Marks out of 25 per Experiment)												Total Marks (25 x No. of Expt.)	FA Marks of Practical Converted according to L-A Scheme (Max Marks..…)	Signature of Student
1	**2**	**3**	**4**	**5**												**6**	**7**	
				1	2	3	4	5	6	7	8	9	10	11	12			
Related CO																		

Signature of Faculty Signature of HoD

Name Name

Note: 1. Fractional marks shall be rounded to next full number

2. Faculty shall add more columns as per

K4

For AICTE Diploma Engineering Courses wef - 2023-24

Maharashtra State Board of Technical Education

SUMMATIVE ASSESSMENT OF PRACTICAL (SA-PR)

Institute Name:

Academic Year Exam: Winter / Summer…….

Programme: Course: Course Code:

Semester: Marks Max. Marks Minimum Date of Examination

Enrollment No.	Exam Seat Number	Name of the Student	Marks obtained in SA part of Practical as per L-A Scheme (Max Marks……)

Signature of Faculty

Name

Signature of External Examiner

Name

Designation:

Institute Code:

Mobile No.:

Note: Fraction of a mark shall be rounded to next full number

K5

For AICTE Diploma Engineering Course wef - 2023-24

Maharashtra State Board of Technical Education

FORMATIVE ASSESSMENT OF THEORY (FA-TH)

Institute Name:

Academic Year Exam: Winter / Summer…….

Programme: Course: Course Code:

Semester:

Roll No.	Enrollment No.	Exam Seat Number	Name of the Student	Marks of Class Test-1 (Out of 30)	Marks of Class Test-2 (Out of 30)	Average of 5 & 6	FA marks of Theory out of 30	Signature of Student
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	

Signature of Faculty Signature of HoD

Name Name

Note: Fractional marks shall be rounded to next full number

K6

For AICTE Diploma Engineering Courses wef - 2023-24

Maharashtra State Board of Technical Education

SELF LEARNING ASSESSMENT (SLA)

Micro project / Assignment / Activities for specific learning / skills development

Institute Name:
Academic Year Exam: Winter / Summer…….
Programme: Course: Course Code:
Semester:

Roll No.	Enrollment No.	Exam Seat Number	Name of the Student	Micro project / Assignment / Activities for specific learning / skills development Marks Obtained				SLA Marks according to L-A Scheme (Max Marks..…)	Signature of Student
				1*	**2***	**….**	**N***		
					-				
						-			
				-			-		
				-		-			

Signature of Faculty Signature of HoD

Name Name

Note: 1. Fractional marks shall be rounded to next full number
2. Refer Detailed Guideline to assess SLA activities as per rubrics
3. The "- "under Activities indicate that the specific activity is not assigned to specific student
4. *- The column is designated for specific activity. (Faculty has to define the activities as per course Requirements.)

K 7 (Part A)

SUGGESTIVE FORMAT

ANALYSIS OF FA-TH CLASS TEST 1 / TEST 2 RESULT

Institute Name:

Academic Year: Exam: Winter / Summer……

Programme: Course: Course Code:

Semester: ……. Name of Teacher:

Course Outcomes

a

b

c

d

e

Roll No.	**Ques 1 (5*2M) or Ques 1 (3*4M)**								**Ques 2 (5*4M) or Ques 2 (3*6M)**								**Total marks (30)**	**Signature of Student**
	a	**b**	**c**	**d**	**e**	**f**	**g**	**h**	**a**	**b**	**c**	**d**	**e**	**F**	**g**	**h**		
CO==>>																		
BT LEVEL=>																		
1																		
2																		
3																		
4																		
5																		
6																		

Total Marks for (given in Question paper)

CO 1	CO 2	CO 3	**CO 4**	**CO 5**

Attainment of COs

CO 1	CO 2	CO 3	**CO 4**	**CO 5**
Target Attainment for Course				
Actual Attainment for the Course				

Name and Signature of Faculty **Name and Signature of HoD**

Note: Use separate proforma for Test 1 & Test 2

K7 (PART B)

For AICTE Diploma Engineering Courses wef - 2023-24

Maharashtra State Board of Technical Education

ANALYSIS OF TERM END EXAMINATION RESULT

Institute Name:

Programme: Semester: Exam: Winter / Summer…….

Sr. No.	Course Code	Name of Course	Passing Head	Marks obtained Lowest	Marks Obtained Highest	No. of students Appeared	No. of student Passed	% Pass	% of students above 60%
			FA-TH						
			SA-TH						
			FA-PR						
			SA-PR						
			SLA						
			FA-TH						
			SA-TH						
			FA-PR						
			SA-PR						
			SLA						
			FA-TH						
			SA-TH						
			FA-PR						
			SA-PR						
			SLA						

Signature of Academic Co-ordinator
Name

Designation

Signature of HoD
Name

Note: Consider only Regular status students for the result analysis

K7 (PART C)

For AICTE Diploma Engineering Courses wef - 2023-24

Maharashtra State Board of Technical Education

TH_FA AND TH-SA ANALYSIS

Institute Name:

Academic Year

Programme:

Sr. No.	COURSE TITLE	FA_TH SCORE INDEX (LAST TWO TERMS)	SA_TH SCORE INDEX	DIFFERENCE	If difference is greater than 20% Give remarks

Signature of Academic Co-ordinator Signature of HoD

Name Name

SCORE INDEX ---- TOTAL MARKS SECURED BY ALL STUDENTS

- ---------- * 100

TOTAL OF MAX MARKS FOR THE HEAD (i.e SA-TH/FA-TH)

K7 (PART D)

For AICTE Diploma Engineering Courses wef - 2023-24

Maharashtra State Board of Technical Education

Success Index (SI)

Institute Name:

Programme: Semester: Exam: Winter / Summer…….

a. Success rate without backlogs in any year of study

SI= (Number of students who have passed from the program without backlog)/ (Number of students admitted in the first year of that batch plus actually admitted in 2nd year via lateral entry)

. Item	CAYm3	CAYm4	CAYm5
Total number of students admitted (Through state level counselling + admitted through Institute on level quota+ actually admitted through lateral entry) ie. (*N*1 + *N*2 + *N3*)			
Number of students who have passed without backlogs in the stipulated period			
Success index (SI = No of students passed without backlog in stipulated period / (N1+N2+N3))			
Average SI (a)			

CAY – Current Academic Year

CAYm1- Current Academic Year minus1= Current Assessment Year

CAYm2 - Current Academic Year minus2=Current Assessment Year minus 1

CAYm3 - Current Academic Year minus3=Current Assessment Year minus 2

CAYm4 - Current Academic Year minus4=Current Assessment Year minus 3

CAYm5 - Current Academic Year minus5=Current Assessment Year minus 4

b. Success rate with backlogs in any year of study

Item	CAYm3	CAYm4	CAYm5
Total number of students admitted (Through state level counselling + admitted through Institute on level quota+ actually admitted through lateral entry) ie. (*N*1 + *N*2 + *N3*)			
Number of students who have passed with backlogs in the stipulated period			
Success index (SI)= No of students passed in stipulated period / (N1+N2+N3)			
Average SI (b)			

SI = Mean of SI(a) and SI(b)

Name and Signature of Faculty **Name and Signature of HoD**

K7 (PART E)

For AICTE Diploma Engineering Courses wef - 2023-24

Maharashtra State Board of Technical Education

Enrolment Ratio

Institute Name:

Programme: Semester: Academic year-

Year	**N from**	**N1+N2**	**Enrolment ratio (N1+N2)/N*100**
CAY			
CAYm1			
CAYm2			

N = *Sanctioned intake strength of the program*

N1= Total *number of students, admitted through state level counselling*

N2 = *Number of students, admitted through Institute level quota*

	Enrolment Ratio
Average Enrolment Ratio of Previous three years including the CAY	

Name and Signature of Faculty **Name and Signature of HoD**

K7 (PART F)

For AICTE Diploma Engineering Courses wef - 2023-24

Maharashtra State Board of Technical Education

Academic Performance Index (API)

Institute Name:

Programme: Semester: Academic Year

a. Academic Performance in Second Year

API =(Mean of the percentage of marks of all successful students in Final Year/10) x (successful students/number of students appeared in the examination)

Academic Performance	**CAYm3**	**CAYm4**	**CAYm5**
Mean Percentage of all successful students (X) /10			
Total no. of successful students (Y)			
Total no. of students appeared in the examination (Z)			
API = x* (Y/Z)			
Average API = (AP1 + AP2 + AP3)/3			

Note: Successful students are those who passed in all the final year courses

b. **Academic Performance in Second Year**

API = (Mean of the percentage of marks of all successful students in Second Year/ 10)) x (successful students/number of students appeared in the examination)

Academic Performance	**CAYm2**	**CAYm3**	**CAYm4**
Mean Percentage of all successful students (X) /10			
Total no. of successful students (Y)			
Total no. of students appeared in the examination (Z)			
API = x* (Y/Z)			
Average API = (AP1 + AP2 + AP3)/3			

c. Academic Performance in First Year

API = (Mean of the percentage of marks of all successful students in First Year/ 10) x (successful students/number of students appeared in the examination).

Academic Performance	**CAYm1**	**CAYm2**	**CAYm3**
Mean Percentage Marks of all successful students (X)			
Total no. of successful students (Y)			
Total no. of students appeared in the examination (Z)			
API = X* (Y/Z)			
Average API = (AP1 + AP2 + AP3)/3			

Academic Performance	**API**
Academic performance in First year = 2.5 x Average API	
Academic performance in Second year = 2.0 * Average API	
Academic performance in Third year = 1.5 * Average API	

Name and Signature of Faculty **Name and Signature of HoD**

K7 (PART G)

For AICTE Diploma Engineering Courses wef - 2023-24

Maharashtra State Board of Technical Education

Placement Index (PI)

Institute Name:

Programme: Semester: Academic Year

Item	CAYm1	CAYm2	CAYm3
Total No. of Final Year Students (N)			
No. of students placed in companies or Government Sector (X)			
No. of students admitted to higher studies (Y)			
No. of students turned entrepreneur in the respective field of engineering /technology (Z)			
Placement Index (P): (1.25X + Y +Z)/N			
Average placement Index = (P1 + P2 + P3)/3			

Name and Signature of Faculty **Name and Signature of HoD**

K8

For AICTE Diploma Engineering Courses wef - 2023-24

Maharashtra State Board of Technical Education

DETAILS OF INDUSTRIAL VISIT

Institute Name:

Academic Year Programme:

Sr. No.	Date of visit	Year / Semester	Name of Industry	Name of Coordinator/s	No. of Beneficiary	Relevance to Course	Mapping with PO /PSO /Level

Name and Signature of Academic Co-ordinator **Name and Signature of HoD**

For AICTE Diploma Engineering Courses wef - 2023-24

Maharashtra State Board of Technical Education

DETAILS OF EXPERT LECTURE

Institute Name:

Academic Year Programme:

Sr. No.	Name, Designation, Organisation of Expert Along with Contact Details & Email ID	Date of Expert Lecture	Topic	Year /Semester	Name of Coordinator	No. of Students Attended	Relevance to PO's & PSO (only nos.)

Signature of Academic Co-ordinator Signature of HoD

Name Name

K10 (PART-A)

For AICTE Diploma Engineering Courses wef - 2023-24

Maharashtra State Board of Technical Education

PLACEMENT DETAILS

Institute Name:

Academic Year

Programme:

Sr. No.	Name of Industry & address	Nature of the Industry Service/Manufacturing/ process/Any other specify	No. of students Placed	Salary

Signature of TPO
Name

Signature of HoD
Name

-

K10 (PART-B)

For AICTE Diploma Engineering Courses wef - 2023-24

Maharashtra State Board of Technical Education

DETAILS OF STUDENT PLACEMENT

Institute Name:

Academic Year

Programme:

Sr. No.	Name of Student	Nature of placement (Higher Studies/ Recruitment/ Self-employment)	Name of Organization/Industry	Remark

Signature of TPO
Name
-

Signature of HoD
Name

Note: The department shall maintain records of students who pursue higher education as well as those who opt for self-employment.

K11

For AICTE Diploma Engineering Courses wef - 2023-24

Maharashtra State Board of Technical Education

DETAILS OF FACULTY / STAFF TRAINING

Institute Name:

Academic Year

Programme:

Sr. No.	Name and Designation of Faculty/Staff	Details of training (Industrial / Content Updating / Soft Skill / Any Other)	Mode of Training (Online/Offline)	Duration of Training in days/weeks/ months	Date /schedule	Organizing Body	Organizing Institute

Signature of Academic Co-ordinator Signature of HoD

Name Name

Note: Faculty / Staff undergone training should transfer the acquired knowledge to the Programme staff & students. The HoD / Principal should certify the activity conducted in this regard & maintain records as per MSBTE norms.

K12

For AICTE Diploma Engineering Courses wef - 2023-24

Maharashtra State Board of Technical Education

DETAILS OF RESOURCES DEVELOPMENT

(Laboratory / Infrastructure / Teaching Aids)

Institute Name:

Academic Year

Programme:

Sr. No.	Details of Resources Available for teaching learning process in Classroom/Laboratory	Effective Utilization

Signature of Academic Co-ordinator

Name

Signature of HoD

Name

K13

For AICTE Diploma Engineering Courses wef - 2023-24

Maharashtra State Board of Technical Education

DETAILS OF CO-CURRICULAR ACTIVITY

Institute Name:

Academic Year

Programme:

Sr. No.	Date	Type of Activity & Details (Paper Presentation / Project / Quiz / etc.)	Organizing Body/ Conducted by Level (Winner / Participation)				Name/s and EnrollNo of the Participant/s	Award/Prize	No of Participants	Relevance to PO's / PSO's (Only nos.)
			Institute	MSBTE	DTE	Any Other				

Signature of Academic Co-ordinator Signature of HoD

Name Name

For AICTE Diploma Engineering Courses wef - 2023-24

Maharashtra State Board of Technical Education

DETAILS OF EXTRA-CURRICULAR ACTIVITY

Institute Name:

Academic Year

Programme:

Sr. no.	Date	Type of Activity & Details (Sports / Drama / Social / NSS / etc.)	Organizing Body/ Conducted by Level (Winner / Participation)				Name/s and EnrollNo of the Participant /s	Award/ Prize	Relevance to PO's / PSO's (Only nos.)
			Institute	MSBTE	DTE	Any Other			

Signature of Academic Co-ordinator Signature of HoD

Name Name

K15

For AICTE Diploma Engineering Courses wef - 2023-24

Maharashtra State Board of Technical Education

STUDENT FEEDBACK

Institute Name:
Academic Year
Programme: Semester: Date
Name of the Faculty:

Enrol. No.	Parameter (Each Parameter to be assessed on the scale of 1 to 5 (1- Lowest & 5- Highest)	Max Marks 25
	Coverage of syllabus	
	Covering relevant topics beyond the syllabus	
	Effectiveness in terms of technical contents / course contents	
	Effectiveness in terms of communication skills	
	Effectiveness in terms of Teaching aids	
	Motivation and inspiration for students to learn in self-learning mode	
	Support for development of student skills: Practical Performance	
	Support for development of student skills: Project and Seminar preparation	
	Feedback provided on student progress	
	Punctuality and discipline	
	Domain Knowledge	
	Interaction with students	
	Ability to resolve difficulties	
	Encourage to participate in cocurricular activities	
	Encourage to participate in Extracurricular activities	
	Guidance during Internship	
	TOTAL MARKS	
	MARKS OUT OF 25	
	Average Marks Obtained out of 25	

Note: Institute as far as possible shall get developed appropriate Software tool to acquire feedback from student logins and accordingly provide suitable reports to faculty and Head of Programme. The tool developed must follow uniformity across the institutions, confidentiality and security in terms of access.

Signature of HoD
Name

For AICTE Diploma Engineering Courses wef - 2023-24

Maharashtra State Board of Technical Education

Laboratory Details

Institute Name:

Provide the details of the facilities & Specifications of Major / Essential Equipment's available for conduction of practical as per curriculum

Name of the Programme:
Name of Laboratory:

Sr. No.	Semester wise course Codes assigned to this Lab	Details of Facility / Equipment's Available	Quantity	Remarks Mention deficiency / Adequateness

Signature of HoD
Name

For AICTE Diploma Engineering Courses wef - 2023-24

Maharashtra State Board of Technical Education

OTHER DEPARTMENT FACILITIES like CoE /Virtual / Industry Sponsored Labs /Special Software platforms, etc.

Institute Name:
Provide the details of the facilities & Specifications of Equipment's available and
Name of the Programme:
Name of Laboratory:

Sr. No.	Semester wise course Codes assigned to this Lab	Details of Facility / Equipment's Available	Quantity	Remarks (Utilisation Details)

Signature of HoD
Name

PART – B2: PROFORMAS FOR "J" SCHEME (Pharmacy Diploma)

Sr. No.	Format No.	Particulars
1.	J1	Teaching Plan (TP)
2.	J2	Laboratory Practical Plan (LPP)
3.	J3	Tutorial Planning
4.	J4	Day to Day Assessment of Practical Work
5.	J5	Sessional Examination Marksheet – Theory
6.	J6	Sessional Examination Marksheet – Practical
7.	J7-A	Assessment of Assignment
8.	J7-B	A typical format for the assessment of an Assignment
9.	J8-A	Assessment of Field Visit Report
10.	J8-B	A typical format for the assessment of a Field Visit Report
11.	J9-A	Progressive Assessment of Theory for First Year
12.	J9-B	Progressive Assessment of Theory for Second Year
13.	J9-C	Progressive Assessment of Practical for First Year
14.	J9-D	Progressive Assessment of Practical for Second Year
15.	J10	Final Assessment for Practical Examination (Summer/Winter)
16.	J11	Result Analysis of Annual Examination
17.	J12	TM and TH Analysis
18.	J13	Enrolment Ratio
19.	J14	Course Outcome Attainment Suggestive Format
20.	J15	Academic Performance Index
21.	J16	Success Index
22.	J17	Placement Index
23.	J18	Details of Placement
24.	J19	Details of Field Visits
25.	J20	Details of Expert Lecture
26.	J21	Details of Faculty / Staff Training
27.	J22	Details of Co-curricular activity
28.	J23	Details of Extra-curricular activity
29.	J24	Student Feedback
30.	J25	Internal Academic Audit Format

For Pharmacy Diploma Course wef: 2025-26

Maharashtra State Board of Technical Education, Mumbai

TEACHING PLAN (TP)

Academic Year: Year: First / Second Year Diploma in Pharmacy
Course Name and Abbr: Course Code:
Course Outcomes: Name of Faculty:
CO1:
CO2:
CO3:
CO4:
CO5:

Chapter No. (Allocated Hrs.)	Relevant CO (Mention only Number)	Topics / Subtopics	Planned Date		Actual Execution		Teaching Method / Media Pedagogy used	Remarks
			From	To	From	To		

(Name & Signature of Faculty) (Name & Signature of HOD)

For Pharmacy Diploma Course wef: 2025-26

Maharashtra State Board of Technical Education, Mumbai

LABORATORY PRACTICAL PLAN (LPP)

Academic Year: Year: First / Second Year Diploma in Pharmacy
Course Name and Abbr: Course Code:
Course Outcomes: Name of Faculty:
CO1:
CO2:
CO3:
CO4:
CO5:

Chapter No. (Allocated Hrs.)	Relevant CO (Mention only Number)	Name of Experiment / Assignment / Field Visit	Planned Date	Actual Execution	Instruction Method / Media / Pedagogy used	Remarks/ Related self learning (if any

(Name & Signature of Faculty) (Name & Signature of HOD)

For Pharmacy Diploma Course wef: 2025-26

Maharashtra State Board of Technical Education, Mumbai

TUTORIAL PLAN (LPP)

Academic Year: Year: First / Second Year Diploma in Pharmacy

Course Name and Abbr: Course Code:

Name of Faculty:

Sr. No.	Tutorial / Activity Performed	Planned Date	Performance Date	Method / Media Used / Pedagogy used	Remarks/ Related self learning (if any

(Name & Signature of Faculty) (Name & Signature of HOD)

For Pharmacy Diploma Course wef: 2025-26

Maharashtra State Board of Technical Education, Mumbai

FORMATIVE (DAY TO DAY) ASSESSMENT OF PRACTICAL WORK

Academic Year: Year: First / Second Year Diploma in Pharmacy

Course Name and Abbr: Course Code:

Sessional Examination: First / Second / Third Name of Faculty:

Roll No.	Enrollment Number	Exam Seat No.	Date of expt / Name of Students	Experiment No. (Mark out of 10)															Total Marks	Average marks out of 10*
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
1																				
2																				
3																				
4																				
5																				
9																				
10																				

(Name & Signature of Faculty) (Name & Signature of HOD)

Format should be maintained for each sessional separately and average mark should be considered as Practical Record Maintenance marks for Practical sessional examination.

For Pharmacy Diploma Course wef: 2025-26

Maharashtra State Board of Technical Education, Mumbai

First / Second/ Third Sessional Examination Marksheet – Theory

Name & Code of Institute:

Academic Year: Year: First / Second Year Diploma in Pharmacy

Course Name and Abbr: Course Code:

Name of Faculty: Date of Examination:

Roll No.	Marks (Out of 20)	Roll No.	Marks (Out of 20)	Roll No.	Marks (Out of 20)

No. of Student Present:	No. of Student Absent:	Total No. of Student:

(Name & Signature of Faculty) (Name & Signature of HOD)

For Pharmacy Diploma Course wef: 2025-26

Maharashtra State Board of Technical Education, Mumbai

First / Second/ Third Sessional Examination Marksheet – Practical

Name & Code of Institute:

Academic Year: Year: First / Second Year Diploma in Pharmacy

Course Name and Abbr: Course Code:

Name of Faculty: Date of Examination:

Roll No.	Marks (Out of 10/20)	Roll No.	Marks (Out of 10/20)	Roll No.	Marks (Out of 10/20)

No. of Student Present:	No. of Student Absent:	Total No. of Student:

(Name & Signature of Faculty) (Name & Signature of HOD)

For Pharmacy Diploma Course wef: 2025-26

Maharashtra State Board of Technical Education, Mumbai

Assessment of Assignment

Name & Code of Institute:

Academic Year: Year: First / Second Year Diploma in Pharmacy

Course Name and Abbr: Course Code:

Assignment: First / Second / Third Sessional Date of Assignment:

Roll No.	Marks (Out of 5 / 10)	Roll No.	Marks (Out of 5 / 10)	Roll No.	Marks (Out of 5 / 10)

(Name & Signature of Faculty) (Name & Signature of HOD)

**Marks should be transferred from J7-B: A typical format for the assessment of an Assignment*

For Pharmacy Diploma Course wef: 2025-26

Maharashtra State Board of Technical Education, Mumbai

A TYPICAL FORMAT FOR THE ASSESSMENT OF AN ASSIGNMENT

Name of the College:	
Name of the Student:	
Academic Year of the Student:	
Name of the Subject:	
Title of the Assignment:	
Date on which the Assignment was given:	
Date on which the Assignment was submitted:	
Name & Designation of the Evaluator:	

Assessment Criteria	**Score**	**Score out of 5 / 10***	**Comments if any**
a. Relevance with the content			
b. Use of resource material			
c. Organization & mechanical accuracy			
d. Cohesion & coherence			
e. Language proficiency & Timely submission			
Total Score (Out of 25)			
Signature of the Student with Date	**Signature of the Teacher with Date**		

Directions for mark grading: 5 – Excellent; 4 - Very Good; 3 – Good; 2 – Satisfactory; 1 – Poor

**** Total Score (out of 25) is reduced to Score (out of 5/10) as per the course requirement.***

For Pharmacy Diploma Course wef: 2025-26

Maharashtra State Board of Technical Education, Mumbai

ASSESSMENT OF FIELD VISIT REPORT

Name & Code of Institute:
Academic Year: Year: First / Second Year Diploma in Pharmacy
Course Name and Abbr: Course Code:
Field Visit Report: First / Second / Third Sessional Date of Field Visit:

Roll No.	Marks (Out of 5)	Roll No.	Marks (Out of 5)	Roll No.	Marks (Out of 5)

(Name & Signature of Faculty) (Name & Signature of HOD)

**Marks should be transferred from J8-B: A typical format for the assessment of a Field Visit Report*

For Pharmacy Diploma Course wef: 2025-26

Maharashtra State Board of Technical Education, Mumbai

A TYPICAL FORMAT FOR THE ASSESSMENT OF A FIELD VISIT REPORT

Name of the College:	
Name of the Student:	
Academic Year of the Student:	
Name of the Subject:	
Title of the Assignment:	
Name & full address of the organization visited:	
Date and Duration of Visit:	
Date on which the Field Visit Report was submitted:	
Name & Designation of the Evaluator:	

Assessment Criteria	**Score**	**Score out of 5**	**Comments if any**
a. Relevance with the content			
b. Use of resource material			
c. Language proficiency & Timely submission			
d. Discipline			
e. Viva - Voce			
Total Score (Out of 25)			
Signature of the Student with Date	**Signature of the Teacher with Date**		

Directions for mark grading: 5 – Excellent; 4 - Very Good; 3 – Good; 2 – Satisfactory; 1 – Poor

For Pharmacy Diploma Course wef: 2025-26

Maharashtra State Board of Technical Education, Mumbai

Progressive Assessment of Theory: First Year

Name & Code of Institute: **Academic year:**

Roll No	Name of students	Enrolment No	Exam Seat No↓ / Date of Examination	Pharmaceutics PHT/20111 (Out of 20)				Pharmaceutical Chemistry PCT/20112 (Out of 20)				Pharmacognosy PYT/20113 (Out of 20)				Human Anatomy and Physiology HPT/20114 (Out of 20)				Social Pharmacy SPT/20115 (Out of 20)				Signature of Student
				1st	2nd	3rd	Average Best of Two	1st	2nd	3rd	Average Best of Two	1st	2nd	3rd	Average Best of Two	1st	2nd	3rd	Average Best of Two	1st	2nd	3rd	Average Best of Two	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
Name & Signature of Faculty																								

(Name & Signature of HOD)

For Pharmacy Diploma Course wef: 2025-26

Maharashtra State Board of Technical Education, Mumbai

Progressive Assessment of Theory: Second Year

Name & Code of Institute: **Academic year:**

Roll No	Name of students	Enrolment No	Exam Seat No↓ Date of Exam→	Pharmacology PGT/20221 (Out of 20)				Community Pharmacy & Management CMT/20222 (Out of 20)				Biochemistry & Clinical Pathology BCT/20223 (Out of 20)				Pharmacotherapeutics PTT/20224 (Out of 20)				Hospital & Clinical Pharmacy HCT/20225 (Out of 20)				Pharmacy Law & Ethics PLT/20226 (Out of 20)				Signature of Student
				1st	2nd	3rd	Average Best of Two	1st	2nd	3rd	Average Best of Two	1st	2nd	3rd	Average Best of Two	1st	2nd	3rd	Average Best of Two	1st	2nd	3rd	Average Best of Two				Average Best of Two	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Name & Signature of Faculty																												

(Name & Signature of HOD)

For Pharmacy Diploma Course wef: 2025-26

Maharashtra State Board of Technical Education, Mumbai

Progressive Assessment of Practical: First Year

Name & Code of Institute: **Academic year:**

Roll No.	Name of Students	Sessional Exam	PHP/20051			PCP/20052		PYP/20053			HPP/20054	SPP/20055			Signature of Student
			Sessional Marks (Out of 10)	Assignment (Out of 5)	Field Visit (Out of 5)	Sessional Marks (Out of 10)	Assignment (Out of 10)	Sessional Marks (Out of 10)	Assignment (Out of 5)	Field Visit (Out of 5)	Sessional Marks (Out of 20)	Sessional Marks (Out of 10)	Assignment (Out of 5)	Field Visit (Out of 5)	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	Exam Seat Number	I													
		II													
		III													
		Average*													
	Enrolment Number	**Internal Marks$**													
2	Exam Seat Number	I													
		II													
		III													
		Average*													
	Enrolment Number	**Internal Marks$**													

**Average for sessional exams should be calculated from best of two sessional marks. * Average for assignment and field visit should be calculated from all three sessionals. (As per guidelines given in ER -2020)*

$ Internal marks should be calculated from sum of average marks of sessional exam, assignment and field visit wherever applicable.

For Pharmacy Diploma Course wef: 2025-26

Maharashtra State Board of Technical Education, Mumbai

Progressive Assessment of Practical: Second Year

Name & Code of Institute: **Academic year:**

Roll No.	Name of Students	Sessional	Pharmacology		Community Pharmacy & Management			Biochemistry & Clinical Pathology		Pharmacotherapeutics	Hospital & Clinical Pharmacy			Signature of Student
			PGP/20056		CMP / 20057			BCP / 20058		PTP / 20059	HCP / 20060			
			Sessional Marks (Out of 10)	Assignment (Out of 10)	Sessional Marks (Out of 10)	Assignment (Out of 05)	Field Visit (Out of 5)	Sessional Marks (Out of 10)	Assignment (Out of 10)	Sessional Marks (Out of 20)	Sessional Marks (Out of 10)	Assignment (Out of 5)	Field Visit (Out of 5)	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
1	Exam Seat Number	I												
		II												
		III												
		Average*												
	Enrolment Number	**Internal Marks$**												
1	Exam Seat Number	I												
		II												
		III												
		Average*												
	Enrolment Number	**Internal Marks$**												

**Average for sessional exams should be calculated from best of two sessional marks. * Average for assignment and field visit should be calculated from all three sessionals. (As per guidelines given in ER -2020)*

$ Internal marks should be calculated from sum of average marks of sessional exam, assignment and field visit wherever applicable.

J-10

For Pharmacy Diploma Course wef: 2025-26

Maharashtra State Board of Technical Education, Mumbai

FINAL ASSESSMENT FOR PRACTICAL EXAMINATION (SUMMER/WINTER)

Name & Code of Institute:

Academic Year: Course Code:

Course Name and Abbr: Date of Examination:

Sr. No.	Enrolment NO	Exam. Seat NO	Name of student	Synopsis out of 10	Experiments out of 60	Viva Voce out of 10	Marks obtained out of 80

Name and Signature of Internal Examiner

Name and Signature of External Examiner

Institute of Code:

Designation:

Mobile No:

For Pharmacy Diploma Course wef: 2025-26

Maharashtra State Board of Technical Education, Mumbai

RESULT ANALYSIS OF ANNUAL EXAMINATION

Academic Year: Examination:

Sr. No.	Course Name	Course Code	Passing Heads	Marks obtained Lowest	Marks obtained Highest	No. of Students appeared	No. of students Passed	% Pass	% of students above 60%
1	PHT	20111	TH-Annual						
			TH-Sessional						
2	PHP	20051	PR-Annual						
			PR-Sessional						
3	PCT	20112	TH-Annual						
			TH-Sessional						
4	PCP	20052	PR-Annual						
			PR-Sessional						
5	PYT	20113	TH-Annual						
			TH-Sessional						
6	PYP	20053	PR-Annual						
			PR-Sessional						
7	HPT	20114	TH-Annual						
			TH-Sessional						
8	HPP	20054	PR-Annual						
			PR-Sessional						
9	SPT	20115	TH-Annual						
			TH-Sessional						
10	SPP	20055	PR-Annual						
			PR-Sessional						
11	PGT	20221	TH-Annual						

			TH-Sessional						
12	PGP	20056	PR-Annual						
			PR-Sessional						
13	CMT	20222	TH-Annual						
			TH-Sessional						
14	CMP	20057	PR-Annual						
			PR-Sessional						
15	BCT	20223	TH-Annual						
			TH-Sessional						
16	BCP	20058	PR-Annual						
			PR-Sessional						
17	PTT	20224	TH-Annual						
			TH-Sessional						
18	PTP	20059	PR-Annual						
			PR-Sessional						
19	HCT	20225	TH-Annual						
			TH-Sessional						
20	HCP	20060	PR-Annual						
			PR-Sessional						
21	PLT	20226	TH-Annual						
			TH-Sessional						

Name and Signature of Exam Coordinator **Name and Signature of HOD**

For Pharmacy Diploma Course wef: 2025-26

Maharashtra State Board of Technical Education, Mumbai

SESSIONAL THEORY MARKS (TM) AND ANNAUAL THEORY MARKS (TH) ANALYSIS

Theory Sessional and Theory Annual Examination Result Analysis

Institute Name:

Academic Year:

Sr. No.	Course name	TM (Sessional Average) Score index	TH (Annual Exam) Score index	Difference	If difference is greater than 20% give remarks
1.	PHT – 20111				
2.	PHP – 20051				
3.	PCT – 20112				
4.	PCP – 20052				
5.	PYT – 20113				
6.	PYP – 20053				
7.	HPT – 20114				
8.	HPP – 20054				
9.	SPT – 20115				
10.	SPP – 20055				
11.	PGT – 20221				
12.	PGP – 20056				
13.	CMT – 20222				
14.	CMP – 20057				
15.	BCT – 20223				
16.	BCP – 20058				
17.	PTT – 20224				
18.	PTP – 20059				
19.	HCT – 20225				
20.	HCP – 20060				
21.	PLT – 20226				

Name and Signature of Academic Coordinator **Name and Signature of HOD**

$$\textbf{Score Index} = \frac{Total\ Marks\ Secured\ by\ All\ Students}{Total\ of\ Maximum\ Marks\ for\ the\ Head} \times 100$$

For Pharmacy Diploma Course wef: 2025-26

Maharashtra State Board of Technical Education, Mumbai

ENROLMENT RATIO

Institute Name:

Academic Year:

Year	N	N1	Enrolment Ratio= N1/N
CAY			
CAYm1			
CAYm2			
Average Enrolment Ratio of Previous three years including the CAY			

N = Sanctioned intake of the program

N1 = Total number of students admitted in first year

CAY: Current Academic Year

CAYm1: Current Academic Year minus 1

CAYm2: Current Academic Year minus 2

Name and Signature of Academic Coordinator **Name and Signature of HOD**

For Pharmacy Diploma Course wef: 2025-26

Maharashtra State Board of Technical Education, Mumbai

COURSE OUTCOME ATTAINMENT SUGGESTIVE FORMAT

Institute Name:

Academic Year:

Course Name and Abbr: Course Code:

Roll No.	Q. 1(5M×3=15M)				Q. 2 (3M × 5 = 15M)						Q. 3 (1M × 20= 20M)																			
	a	b	c	d	a	b	c	d	e	f	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t
CO																														
1																														
2																														
3																														
4																														
5																														

Total Marks assigned for each course outcomes

CO1	CO2	CO3	CO4

Average Marks Obtained for CO

CO1	CO2	CO3	CO4

$$\text{CO Attainment} = \frac{\text{Average Marks Obtained for CO}}{\text{Total Marks for assigned CO}} \times 100$$

Target Attainment for Course	
Actual Attainment for the Course	

(Name & Signature of Faculty) (Name & Signature of HOD)

For Pharmacy Diploma Course wef: 2025-26

Maharashtra State Board of Technical Education, Mumbai

ACADEMIC PERFORANCE INDEX

Institute Name:

Academic Year:

Academic Performance score= 1.5*Average API

Academic Performance Index (API) *= (Mean of the percentage of marks of all successful students in Final Year/10) x (Successful students (Y) /Number of students appeared in the examination (Z)).*

Academic Performance	**CAY**	**CAYm1**	**CAYm2**
Mean Percentage of all successful students on a 10 points scale (X)			
Total no. of successful students (Y)			
Total no. of students appeared in the examination (Z)			
API = X × (Y/Z)	AP1=	AP2=	AP3=
API = (AP1 + AP2 + AP3)/3			

Note: Successful students are those who passed the courses in the stipulated period

Name and Signature of Academic Coordinator **Name and Signature of HOD**

For Pharmacy Diploma Course wef: 2025-26

Maharashtra State Board of Technical Education, Mumbai

SUCCESS INDEX

Institute Name:
Academic Year:
Success Index (SI) = Students graduating in minimum stipulated time of two years
SI = Number of students graduated in minimum stipulated time)/ Number of students admitted
Average SI = Mean of success index (SI) for past three batches
Success rate score = 20 × Average SI

Item	Last year Graduate	Last year Graduate Minus1	Last year Graduate Minus 2
Number of students admitted			
Number of students graduated in minimum stipulated time			
Success index (SI)			
Average SI			
Success rate score = 20*Average SI			

CAYm2: Current Academic Year minus 2 = Last Year Graduate (LYG)

CAYm3: Current Academic Year minus 3 = Last Year Graduate minus 1 (LYGm1)

CAYm4: Current Academic Year minus 4 = Last Year Graduate minus 2 (LYGm2)

Name and Signature of Academic Coordinator **Name and Signature of HOD**

For Pharmacy Diploma Course wef: 2025-26

Maharashtra State Board of Technical Education, Mumbai

PLACEMENT INDEX

Institute Name:

Academic Year:

Details of Placement and Higher Studies

Item	**CAY**	**CAYm1**	**CAYm2**
Total No. of Final Year Students (N)			
Number of students placed in Industries/ Hospitals/ Government sector through on/off campus recruitment or opted for Entrepreneurship (x)			
Number of students admitted to higher studies (y)			
x + y			
Placement Index: (x + y)/N			
T = Average of (x + y)/N			
Assessment = 20 X T			

Name and Signature of Training & Placement officer **Name and Signature of HOD**

For Pharmacy Diploma Course wef: 2025-26

Maharashtra State Board of Technical Education, Mumbai

DETAILS OF PLACEMENT

Institute Name:

Academic Year:

Sr. No.	Name of Student	Nature of placement (Higher Studies/ Recruitment/ Self-employment)	Name of Organization (Industry/Hospital Pharmacy / Community Pharmacy/ Institute)	Remark

Name and Signature of Training & Placement officer **Name and Signature of HOD**

For Pharmacy Diploma Course wef: 2025-26

Maharashtra State Board of Technical Education, Mumbai

DETAILS OF FIELD VISITS

Institute Name:

Academic Year:

Sr. No.	Name of Place Visited	Year PH1J / PH2J	Course Name	Course Code	Name of Co-ordinator	Date of Visit	No. of Beneficiaries	Relevance to PO's & PEO's (Only NOs)

Name and Signature of Academic Coordinator **Name and Signature of HOD**

For Pharmacy Diploma Course wef: 2025-26

Maharashtra State Board of Technical Education, Mumbai

DETAILS OF EXPERT LECTURE

Institute Name:

Academic Year:

Sr. No.	Name, Designation, Organization of Expert Along with Contact Details & email ID	Date of Expert Lecture	Topic	Year PH1J / PH2J	Name of Coordinator	No. of Students Attended	Relevance to PO's & PEO's (Only NOs)

Name and Signature of Academic Coordinator **Name and Signature of HOD**

For Pharmacy Diploma Course wef: 2025-26

Maharashtra State Board of Technical Education, Mumbai

DETAILS OF FACULTY TRAINING

Institute Name:

Academic Year:

Sr. No.	Name and Designation of Faculty/Staff	Details of training (Industrial / Content Updating / Soft Skill /Any Other)	Training Mode (Online/Offline)	Duration of Training in days/weeks/ months	Date /schedule	Organizing Body	Organizing Institute

Name and Signature of Academic Coordinator **Name and Signature of HOD**

Note: *Faculty / Staff undergone training should transfer the acquired knowledge to the Programme staff & students. The HoD / Principal should certify the activity conducted in this regard & maintain records as per MSBTE norms.*

For Pharmacy Diploma Course wef: 2025-26

Maharashtra State Board of Technical Education, Mumbai

DETAILS OF CO-CURRICULAR ACTIVITY

Institute Name:

Academic Year:

Sr. No.	Date	Type of Activity & Details (Paper Presentation / Project / Quiz / etc.)	Organizing Body/ Conducted by Level (Winner / Participation) (DTE/MSBTE/Institute/ Other)	Name/s and Enroll No of the Participant	Award/Prize	No of Participants	Relevance to PO's & PEO's (Only NOs)

Name and Signature of Academic Coordinator **Name and Signature of HOD**

For Pharmacy Diploma Course wef: 2025-26

Maharashtra State Board of Technical Education, Mumbai

DETAILS OF EXTRA-CURRICULAR ACTIVITY

Institute Name:

Academic Year:

Sr. No.	Date	Type of Activity & Details (Sports / Drama / Social / NSS / etc.)	Organizing Body/ Conducted by Level (Winner / Participation) (DTE/MSBTE/Institute/ Other)	Name/s and Enroll No of the Participant	Award/Prize	Relevance to PO's & PEO's (Only NOs)

Name and Signature of Academic Coordinator **Name and Signature of HOD**

For Pharmacy Diploma Course wef: 2025-26

Maharashtra State Board of Technical Education, Mumbai

STUDENT FEEDBACK

Institute Name:

Academic Year: Date of feedback taken:

Name of the Faculty: Course Taught:

Enrolment Number	Parameter (Each Parameter to be assessed on the scale of 1 to 5 (1- Lowest & 5- Highest)	Feedback
	Coverage of syllabus	
	Covering relevant topics beyond the syllabus	
	Effectiveness in terms of technical contents / course contents	
	Effectiveness in terms of communication skills	
	Effectiveness of teacher in terms of use of teaching aids	
	Motivation and inspiration for students to learn	
	Support for development of student skills: Practical Performance	
	Support for development of student skills: Project and Seminar preparation	
	Feedback provided on student progress	
	Punctuality and discipline	
	Domain Knowledge	
	Interaction with students	
	Ability to resolve difficulties	
	Encourage to participate in cocurricular activities	
	Encourage to participate in Extracurricular activities	
	TOTAL MARKS	
	MARKS OUT OF 25	
Any other information/suggestion, you want to provide:		

Note: Institute as far as possible shall get developed appropriate Software tool to acquire feedback from student logins and accordingly provide suitable reports to faculty and Head of department. The tool developed must follow uniformity across the institutions, confidentiality and security in terms of access.

Name and Signature of HOD

INTERNAL ACADEMIC AUDIT FORMAT

(For Diploma Pharmacy Institutes)

Introduction

The Internal Academic Audit is a structured mechanism designed to ensure quality assurance, regulatory compliance, and continuous improvement in all academic and institutional domains. It aligns with the standards of MSBTE, PCI, and QCI, while fostering a culture of transparency, accountability, and holistic development.

By adopting this mechanism, the institute gains a strategic advantage for self-improvement and benchmarking in quality education. It serves as a tool to strengthen institutional practices, thereby contributing to the successful realization of the vision and mission of the institute as well as MSBTE.

Objectives of Audit

- Ensure compliance with statutory, academic, and regulatory norms.
- Monitor and enhance the effectiveness of teaching–learning processes and documentation.
- Evaluate curricular, co-curricular, extracurricular, placement, and alumni activities.
- Assess committee functioning, governance practices, and internal assessments.
- Recognize and promote faculty and student achievements.
- Track corrective actions and institutional progress for sustainable growth.
- Facilitate continuous self-improvement in quality education and align institutional performance with the vision, mission, and quality benchmarks of MSBTE.

Instructions for Evaluation

1. The Internal Academic Monitoring Committee (IIMC) shall perform the Internal Academic Audit and ensure impartial evaluation of all sections.
2. **Evaluation Scale**: All particulars given in the audit tables are to be evaluated on a 1–5 points rating scale.
3. **Documentary Evidence**: Wherever required, documentary evidence must be physically verified along with the proformas provided under the 'J' Scheme.
4. **Rating Guide (1–5):**

   5 = Excellent execution with strong impact & evidence

   4 = Well conducted with good documentation

   3 = Conducted with partial evidence

2 = Conducted but poorly documented

1 = Not conducted / No evidence

5. Scoring & Rating Scale

- **Excellent (≥ 160 / 200)** – Strong performance, model practices.
- **Good (120–159 / 200)** – Moderate progress, minor gaps.
- **Satisfactory (80–119 / 200)** – Needs several improvements.
- **Needs Improvement (< 80 / 200)** – Major corrective actions required.

For Pharmacy Diploma Course wef: 2025-26

Maharashtra State Board of Technical Education, Mumbai

INTERNAL ACADEMIC AUDIT FORMAT

Institute Name:

Academic Year: Internal Audit: First / Second

A. Curricular Activities

Sr. No.	Particular	Prescribed Sessions/Hrs	Conducted Sessions/Hrs	% coverage of curriculum	Evidence available	Ratings on 1–5 points scale	Remarks
1	Theory Classes				Yes / No		
2	Practicals				Yes / No		
3	Tutorials				Yes / No		
4	Assignments				Yes / No		
5	Field Visits				Yes / No		
6	Innovative teaching, ICT/ AI tools used				Yes / No		
7	Attainment of COs				Yes / No		
					Total Rating		

B: Co-curricular Activities

Sr. No.	Particular	Evidence	Ratings on 1–5 points scale	Remarks
1	Orientation / Induction Program	Yes / No		
2	Guest Lectures	Yes / No		
3	State / Regional / District / Institute level competitions (poster, model, quiz, etc.) organized / participated	Yes / No		
4	Seminars/Workshops/Soft Skill Programs organized or participated	Yes / No		
5	Other Activities organized or participated	Yes / No		
		Total Rating		

Section C: Essentials of Academic Process

Sr. No.	Particular	Documentary Evidence available	Ratings on 1–5 points scale	Remarks
1	Academic calendar prepared & followed	Yes / No		
2	Teaching plans prepared & submitted	Yes / No		
3	Attendance monitored & analyzed	Yes / No		
4	Feedback mechanisms implemented	Yes / No		
5	Awareness of CIAAN norms among faculty	Yes / No		
6	Are all statutory committees formed as per norms?	Yes / No		
7	Statutory committees formed & meetings documented	Yes / No		
8	Placement cell functioning	Yes / No		
9	Corrective actions taken on audit findings	Yes / No		
Total Rating				

Section D: Extracurricular Activities

Sr. No.	Particular	Evidence available	Ratings on 1–5 points scale	Remarks
1	Cultural Programs	Yes / No		
2	Sports Activities	Yes / No		
3	NSS / Health / Outreach / Social Activities	Yes / No		
4	Magazine / Creative Writing	Yes / No		
5	Eco / Green Club Activities	Yes / No		
Total Rating				

Section E: Examinations

Sr. No.	Particular	Documentary Evidence available	Ratings on 1–5 points scale	Remarks
1	Internal exams conducted as per academic calendar	Yes / No		
2	Fair conduct of exams	Yes / No		
3	Timely evaluation & result declaration	Yes / No		

4	Maintenance of exam records	Yes / No		
5	Result analysis & remedial classes	Yes / No		
		Total Rating		

Section F: Alumni Involvement

Sr. No.	Particular	Documentary Evidence available	Ratings on 1–5 points scale	Remarks
1	Alumni association registered	Yes / No		
2	Alumni meet organized	Yes / No		
3	Alumni involved in institute development	Yes / No		
4	Alumni support in placements	Yes / No		
5	Other Alumni contributions	Yes / No		
		Total Rating		

Section G: Institute, Faculty & Student Achievements:

Sr. No.	Particular	Documentary Evidence available	Ratings on 1–5 points scale	Remarks
1	Institute special achievements	Yes / No		
2	Faculty Achievements (Research, FDPs, Patents, Awards)	Yes / No		
3	Student Achievements: Award own in various technical activities / Participated in state level activities	Yes / No		
4	Overall Academic environment of the Institute	Yes / No		
		Total Rating		

OVERALL SCORE:

Sr. No.	Criteria	Score obtained	Score out of
A	Curricular Activities		**35**
B	Co-curricular Activities		**25**
C	Essentials of Academic Process		**45**
D	Extracurricular Activities		**25**
E	Examinations		**25**
F	Alumni Involvement		**25**
G	Institute, Faculty & Student Achievements		**20**
	Total Score		**200**
	Overall Rating		

Outcome & Action Plan:

Strengths Observed	
Areas for Improvement	
Corrective Actions Suggested	
Timeline for Implementation	
Corrective actions taken on the basis of previous Internal Academic Audit	

Name & Signature of Internal Academic Audit Committee:

PART - C

EVALUATION CRITERIA

For External Institute Monitoring

(AICTE/COA/PCI Approved Programmes)

C1.1 Criteria Wise Summary Table for AICTE Approved Diploma Courses

Sr. No	Criteria	Institute Level		Department Level		Total	
		No of Categories	Weight - age	No of Categories	Weight - age	No of Categories	Weight - age
1	Affiliation, Governance & Administration	**41**	**100**	**8**	**34**	**49**	**134**
2	Academic	**16**	**33**	**47**	**226**	**63**	**259**
3	Socio- Economic	**4**	**5**	**1**	**2**	**5**	**7**
Total		**61**	**138**	**56**	**262**	**117**	**400**

C1.2 Criteria Wise Summary Table for CoA Approved Diploma Courses

Sr. No	Criteria	Institute Level		Department Level		Total	
		No of Categories	Weight - age	No of Categories	Weight - age	No of Categories	Weight - age
1	Affiliation, Governance & Administration	**41**	**100**	**8**	**34**	**49**	**134**
2	Academic	**14**	**33**	**47**	**226**	**61**	**259**
3	Socio- Economic	**4**	**5**	**1**	**2**	**5**	**7**
	Total	**59**	**138**	**56**	**262**	**115**	**400**

C1.3: Criteria Wise Summary Table for PCI Approved Diploma Courses

Sr. No	Criteria	Institute Level		Department Level		Total	
		No of Categories	Weight - age	No of Categories	Weight - age	No of Categories	Weight - age
1	Affiliation, Governance & Administration	**41**	**100**	**8**	**36**	**49**	**136**
2	Academic	**16**	**33**	**41**	**224**	**57**	**257**
3	Socio- Economic	**4**	**5**	**1**	**2**	**5**	**7**
	Total	**61**	**138**	**50**	**262**	**111**	**400**

C2.1 Criteria for Institute Monitoring for All India Council of Technical Education (AICTE) approved Diploma courses affiliated to MSBTE: -

Sr. No	Criteria & Sub-criteria	Institute Level		Dept. Level		Total	
		No. of categories & Sub-categories	Weightage	No. of categories & Sub-categories	Weightage	No. of categories & Sub-categories	Weightage
I	**Affiliation, Governance & Administration**	**41**	**100**	**8**	**34**	**49**	**134**
A	Compliance to the provision of Section 25(1) of MSBTE Act, 1997 regarding condition of affiliation	28	78	7	32	35	110
B	Governance and Administrative Criteria	5	6	1	2	6	8
C	Redressal and Medical Care System	5	11	0	0	5	11
D	Facilities available	3	5	0	0	3	5
II	**Academic criteria**	**16**	**33**	**47**	**226**	**63**	**259**
A	Accreditation	0	0	3	10	3	10
B	Learning Resources	0	0	4	11	4	11
C	Curriculum Coverage	0	0	15	84	15	84
D	Professional Output	10	21	2	7	12	28
E	Efforts for faculty development and industry involvement	0	0	6	19	6	19
F	Result and Placements	2	3	15	91	17	94
G	Co-Curricular Activities	4	9	2	4	6	13
III	**Socio Economic criteria**	**4**	**5**	**1**	**2**	**5**	**7**
A	Alumni	3	3	0	0	3	3
B	Socio-Industry Involvement	1	2	1	2	2	4
Total		**61**	**138**	**56**	**262**	**117**	**400**

Sr. No	Academic Monitoring Grade	Percentage of marks obtained (Out of 300)
1	**Excellent**	**≥ 86%**
2	**Very Good**	**≥ 71% to ≤ 85%**
3	**Good**	**≥ 56 % to ≤ 70%**
4	**Satisfactory**	**≥ 40 % to ≤ 55 %**
5	**Poor**	**< 40 %**

C2.2 Criteria for Institute Monitoring for Council Of Architecture (COA) approved Diploma courses affiliated to MSBTE: -

Sr. No	Criteria & Sub-criteria	Institute Level		Dept. Level		Total	
		No. of categories & Sub-categories	Weightage	No. of categories & Sub-categories	Weightage	No. of categories & Sub-categories	Weightage
I	**Affiliation, Governance & Administration**	**41**	**100**	**8**	**34**	**49**	**134**
A	Compliance to the provision of Section 25(1) of MSBTE Act, 1997 regarding condition of affiliation	28	78	7	32	35	110
B	Governance and Administrative Criteria	5	6	1	2	6	8
C	Redressal and Medical Care System	5	11	0	0	5	11
D	Facilities available	3	5	0	0	3	5
II	**Academic criteria**	**14**	**33**	**47**	**226**	**61**	**259**
A	Accreditation	0	0	3	10	3	10
B	Learning Resources	0	0	4	11	4	11
C	Curriculum Coverage	0	0	15	84	15	84
D	Professional Output	8	21	2	7	10	28
E	Efforts for faculty development and industry involvement	0	0	6	19	6	19
F	Result and Placements	2	3	15	91	17	94
G	Co-Curricular Activities	4	9	2	4	6	13
III	**Socio Economic criteria**	**4**	**5**	**1**	**2**	**5**	**7**
A	Alumni	*3*	3	*0*	0	*3*	3
B	Socio-Industry Involvement	*1*	2	*1*	2	*2*	4
Total		**61**	**138**	**57**	**262**	**118**	**400**

Sr. No	Academic Monitoring Grade	Percentage of marks obtained (Out of 300)
1	**Excellent**	**≥ 86%**
2	**Very Good**	**≥ 71% to ≤ 85%**
3	**Good**	**≥ 56 % to ≤ 70%**
4	**Satisfactory**	**≥ 40 % to ≤ 55 %**
5	**Poor**	**< 40 %**

C2.3 Criteria for Institute Monitoring for Pharmacy Council of India New Delhi approved Diploma Pharmacy Programme affiliated to MSBTE

Sr. No	Criteria & Sub-criteria	Institute Level		Dept. Level		Total	
		No. of categories & Sub-categories	Weightage	No. of categories & Sub-categories	Weigh tage	No. of categories & Sub-categories	Weightage
I	**Affiliation, Governance & Administration**	**41**	**100**	**8**	**36**	**49**	**136**
A	Compliance to the provision of Section 25(1) of MSBTE Act, 1997 regarding condition of affiliation	28	78	7	34	35	112
B	Governance and Administrative Criteria	5	6	1	2	6	8
C	Redressal and Medical Care System	5	11	0	0	5	11
D	Facilities available	3	5	0	0	3	5
II	**Academic criteria**	**16**	**33**	**41**	**224**	**57**	**257**
A	Accreditation	0	0	3	10	3	10
B	Learning Resources	0	0	4	11	4	11
C	Curriculum Coverage	0	0	14	91	14	91
D	Professional Output	10	21	2	7	12	28
E	Efforts for faculty development and industry involvement	0	0	5	17	5	17
F	Result and Placements	2	3	11	84	13	87
G	Co-Curricular Activities	4	9	2	4	6	13
III	**Socio Economic criteria**	**4**	**5**	**1**	**2**	**5**	**7**
A	Alumni	03	03	-	-	03	03
B	Socio-Industry Involvement	01	02	01	02	02	04
Total		**61**	**138**	**50**	**262**	**111**	**400**

Sr. No	Academic Monitoring Grade	Percentage of marks obtained (Out of 300)
1	**Excellent**	**≥ 86%**
2	**Very Good**	**≥ 71% to ≤ 85%**
3	**Good**	**≥ 56 % to ≤ 70%**
4	**Satisfactory**	**≥ 40 % to ≤ 55 %**
5	**Poor**	**< 40 %**

C 3.0 Evaluation Criteria: -

I	Affiliation, Governance & Administration				
S. N	**Criteria & Sub-criteria**	**Documents to be Verified**	**Observations**	**Marks**	**I/D (M)**
A	**Compliance to the provision of Section 25 (1) of MSBTE Act, 1997 and MSBTE (Amendment) Act, 2023 regarding condition of affiliation**				
a	Whether the provisions of the Act and regulations there under and the standing orders & directions of the Board were observed by the institute	Report of category wise incidences by MSBTE/RBTE	No incidence of non-compliance reported by the Board	2	I (2)
			Incidence reported and enquiry in process	1	
			Incidence reported, facts established and/or legal dispute in process	0	
b	Whether there was a separate local managing committee/ Governing Body/ CDC Committee/Governing Board in place **(As per AICTE Norms/PCI/ COA Norms)**	Document regarding Governing Body/ CDC/Board such as office order, Meeting register, acceptance letter of the member (As per AICTE / PCI/ COA Norms)	Yes	1	I (1)
			No	0	
	Adequate representation of industry and academician on board *(For Pharmacy, from Pharmacy background and For Architecture, from Architecture Profession only)*		At least one each from industry and reputed academicians	2	I (2)
			One member either from industry or reputed academicians	1	
			None either from industry or reputed academicians	0	
	Whether meeting was conducted in last year or not? (To verify the documents of Minutes of meeting)		Yes	1	I (1)
			No	0	
c	Whether the number of students admitted for courses/programmes of study not exceed the limits prescribed by the Board and the Govt. from time to time	Admission / Enrollment List	Yes	1	I (1)
			No	0	
d	Enrollment Ratio	DTE Admitted Candidate List	>= 90%	5	D (5)
			>= 80%	4	
			>= 70%	3	
			>= 60%	2	
			>= 50%	1	
			Less than 50%	0	

e	Whether there were suitable and adequate physical facilities such as buildings, laboratories, libraries, books, +equipment required for teaching and research, hostels, gymnasium.				
	1) Land of institute as per AICTE/COA/ PCI Norms	Document of title with proof of registration (As per deficiency report generated by AICTE / COA/PCI for that particular A.Y)	Tax Receipt	3/0	I (5)
			Valid Structural Stability Certificate	2/0	
	2) Built up area as per AICTE/*PCI* /COA Norms	Deficiency report of current year Extension of Approval (EOA) Application to AICTE/COA (As per deficiency report generated by AICTE/COA for that particular A.Y)	More than or as per AICTE / PCI/COA norms	2	I (2)
			Less than AICTE / PCI/COA norms	0	
	3) Occupancy Certificate	**Certificate by Competent Authority**	**No**	**--**	**"Poor" grade in Monitoring**
	4) NBA Accreditation ***QCI: Ranking and rating for Pharmacy Institute***	Physical Verification	50% or more programmes	4	I (4)
			20% to 49% programmes *(NA for Pharmacy)*	3	
			Applied for NBA/QCI(prequalified/SAR uploaded)	2	
			No Accreditation *(No QCI Ranking rating)*	0	
	5) Boys Hostel facility (**Own/Rented**)	Physical Verification (with 10% of sanctioned intake for total duration of course)	Available	1/0	I (2)
			Utilization	1/0	
	6) Girls Hostel facility (**Own/Rented**)		Available	1/0	I (2)
			Utilization	1/0	
	7) Number of Common Laboratories as per	Physical Verification (As per deficiency report generated by	4 & above for AICTE / CoA/ Pharmacy	5	D (5)

	AICTE/ *PCI* /COA norms and Area as per Norms (**AICTE Programmes** – Common labs like Physics/Chemistry /Language/Applied Mechanics/ Workshops as applicable. **Architecture-** *Environmental lab,Material Museum , Model Making Lab* **Pharmacy-** *Herbal Garden, Drug Museum,Aseptic Room /* Machine Room *for Pharmacy*	AICTE/COA/PCI for that particular A.Y)	Less than 4 for AICTE/CoA Programmes **For Pharmacy-** *Herbal Garden(2/0), Drug Museum(1/0), Aseptic Room(1/0) /* Machine Room(1/0) *for Pharmacy*	0	
	8) Computer center with adequate equipment in working Condition (as per the AICTE*/PCI*/COA norms).	Physical Verification (As per deficiency report generated by AICTE/*PCI*/COA for that particular A.Y)	Yes	2	I (2)
			No	0	
	9) Student to Computer ratio, considering sanctioned intake.	Accession register of library, register showing no. of books, Bill of purchase or grants (As per deficiency report /*SIF* generated by AICTE/*PCI/* COA for that particular A.Y)	10:1	4	I (4)
			Les than AICTE norm	0	
	10) Library: - Number of books in library (Preferably as per MSBTE/*PCI /COA* Curriculum) (20 years old max for calculation)	Physical verification Students Feedback	As per AICTE*/PCI/* COA Norms	3	I (3)
			Below AICTE*/PCI/* COA Norms	0	
	11) Availability of Book Bank Reference Books (as per AICTE/*PCI*/ COA Norms) Facility for more than 25% students	Physical verification Students Feedback Physical Verification (As per deficiency report generated by AICTE/SIF report generated by *PCI*/COA for that particular A.Y)	Yes	1/0	I (3)
			Utilization	1/0	
			Reading Room	1/0	
	12) Library: - No. of National /International/ Technical journals subscribed [Hard copies] per branch	Physical Verification (As per deficiency report generated by AICTE/*PCI*/COA	3 or More for AICTE (*6 or more for Pharmacy / Architecture*)	2	I (2)
			Less than 3 for AICTE	0	

		for that particular A.Y)	(Less than 6 *for Pharmacy / Architecture*)		
	13) Digital- Library Facilities (Multimedia PCs with Internet surfing)	Physical Verification (As per deficiency report generated by AICTE/*PCI*/COA for that particular A.Y)	10 or More PCs for AICTE (*6 or more for Pharmacy / Architecture*)	1	I (1)
			Less Than 10 PCs for Engineering (*Less than 6 for Pharmacy / Architecture*)	0	
	14) Daily Library Usage (% of students doing book transactions) out of total students	Usage Register Issue/Receipt register (All Students on Roll are considered as Total students)	6% or more	2	I(2)
			3% to 5%	1	
			Less than 3%	0	
	15) Whether Hygienic Condition is Maintained in the Institute (viz. Drinking Water, Washroom, Canteen)	Physical Verification	Drinking Water	1/0	I (3)
			Washroom	1/0	
			Canteen	1/0	
	16) Whether Girls Common Room along with sanitary napkins vending machine & disposal mechanism available?		Yes	1	I (1)
			No	0	
	17) Accessibility for physical environment, transportation information, communication, & appropriate technology for person with disability.		Yes	2	I (2)
			No	0	
			No	0	
	18) Availability of CCTV (Working condition with 15 days Recording) Security/Surveillance System in the campus (Class room, Labs, Corridors, Library, Exam Control Room etc.)	Physical Verification	Yes	3	I (3)
			No	0	
	19) Whether Safety provisions including fire & other calamities in place?	**Physical Verification & Certificate from Competent Authority**	**No**	--	**"Poor" grade in Monitoring**

	20) Availability of Sports Facility (Indoor,Outdoor) Gymnasium, Number of playground minimum (or MOU with sports complex/agency)	Physical Verification ***(Non availability of Sports facility – 0 mks)***	Indoor-3sports Outdoor-3sports	3	I (3)
			Indoor-2sports Outdoor-2sports	2	
			Indoor-1sports Outdoor-1sports	1	
f	Whether there were financial resources of the institution such as to make due provision for its continued maintenance and working	1) Total staff salary for last Financial Year. a) Required b) Paid 2) Total Non-Recurring expenditure for last Financial Year. 3) Fees approved by Fee Regulating Authority. 4) Total number of students admitted. 5) Total fees collected. 6) Revenue from other resources for filling the gap between salary to be paid, other expenses & fees collected. (From Management/Trust, sponsorship, bank loan, consultancy, etc.) Above information is to be verified from Balance Sheet, Income & Expenditure Statement, FRA/FFC Computational Sheet, Salary	Financially stable & safe and paying regular salary (5+6)>=(1+2) **Stable & Safe**	8	I (8)
			Financially comfortable and paying regular salary (1+2)>(5+6)> = (0.75*(1+2)) **Partially Stable**	3	
			Financially unsafe because salary is not paid for more than six months **Unstable Leading to "Poor"**	0	

		Statement, Bank Statement etc.			
g	Whether the strength and qualifications of teaching and non-teaching staff of the affiliated recognized institutions and the emoluments and conditions of service of the staff of affiliated institutions was as prescribed by the Board/COA/PCI and was sufficient to make due provision for courses of study, teaching or training or research efficiently				
	1) Principal (As Per current AICTE/*PCI/COA* Norms)	Appointment order, Mode of any appointment, approval by Competent Authority.	Regular	6	I (06)
			In charge with required Qualification & experience		
			Above 15 year (Above 5 years for PH)	4	
			10-15 (*NA for PH*)	3	
			Less than 10 (Less than 5 for PH)	0	
	2) Head of the department (As Per current AICTE/COA Norms - Faculty to Student ratio based on approved intake: Minimum 80% should be regular/full time faculty and remaining may be adjunct faculty/ Resource persons industry) *(Applicable to Pharmacy institute having both B. Pharm and D. Pharm or D. Pharm in the Polytechnic Institute / NA for standalone D. Pharm institute-Marks shall be allotted to such institutes)*	Appointment order, Mode of any appointment, approval by Competent Authority.	Regular	5	D (05)
			In charge with required Qualification & experience		
			Above 15 year (Above 5 years for PH)	4	
			10-15	3	
			5-10	2	
			Less than 5/ Incharge without required Qualifications	0	
	3) Faculty to Student ratio based on approved intake:		1:25 (for PH - 1:20)	5	D (5)

	Minimum 80% should be regular/full time faculty and remaining may be adjunct faculty/ Resource persons industry *for AICTE/CoA course.* ***For PH -*** *100% of faculty should be regular as per ER2020.*	Related document verification Physical Verification	1:26 to 1:30	4	
			Above 1:30 (for PH – Above 1:20)	0	
	4) Percentage faculty approved by State Govt./DTE/COA MSBTE or proposals sent to State Govt./DTE/COA/ MSBTE for approval & awaited; out of total required faculty (committee to verify details)	Physical Verification	50% or more	5	D (5)
			20% To 49 %	3	
			Less than 20%	0	
	5) Implementation of latest Pay commission for faculty salary	Related document verification	60 % and above	4	I (04)
			30 % to 59 %	2	
			10 % to 29 %	1	
			None	0	
	6) M. E. / M. Tech */ M. Pharm/ M. Arch* qualified (Completed) faculty out of required posts as per AICTE/COA/ *PCI (ER-2020)* norms .	Marks sheet / PG Certificate (As per deficiency report generated by AICTE/ COA/ *PCI* for that particular A.Y)	50% or more (For PH- 03 or more lecturers with M. Pharm)	5	D (5)
			35% to 49% (NA for Pharmacy)	3	
			Less Than 35% (For PH- less than 3 lecturers with M. Pharm)	0	
	7) No. of Faculties completed Ph.D. Study / M. Arch for Architecture only	Award Certificate Provisional or Final	1 or More	2	D (2)
			Nil	0	
	8) No. of Faculties completed Ph.D. Study (Humanities, Common Staff) (***NA for Pharmacy / Architecture***)	Related document verification	1 or More	2	I (2)
			Nil	0	
	OR No. of Faculties completed M.Arch with 19 years experience ***(For Architecture Only)***	Related document verification	1 or More	2	
			Nil	0	
	OR For Pharmacy Only *Number of lecturers holding a B. Pharm degree with at least 3 years of professional experience*	Qualification and Experience certificates	02	02	D (02)
			Less than 4 / Lecturers with less than 3 years professional experience	00	
	9) Availability of supporting staff	Related document verification	Yes	5	I (5)

	as per the Government Norms. (*For Pharmacy as per ER 2020)*	(0.9 * No. of lecturers in dept.) - as per Govt. Norms (As per deficiency report generated by AICTE/COA/*PCI* for that particular A.Y)	No	0	
	10) Availability of Administrative Staff (*For Pharmacy as per ER 2020)*	Related document verification (0.6 * No. of lecturers in Institute) - as per Govt. Norms (As per deficiency report generated by AICTE/COA/*PCI* for that particular A.Y)	Yes	2	I (2)
			No	0	
	11) ***For Pharmacy Only*** *Laboratory Technician with D. Pharm Qualification as per ER 2020*	*Qualification documents & Pharmacist Registration certificate*	*2*	*2*	I (02)
			1	*1*	
			Less than 1	*0*	
B	**Governance and Administrative Criteria**				
1	Vision & Mission of Institute (As approved in Governing / Board Meeting/CDC Meeting/Stake Holders)	In case of Pharmacy Vision and Mission of Department/Institute as applicable	Yes	2	I (2)
			No	0	
2	Vision & Mission of Department (As approved in Governing / Board Meeting/ CDC Meeting/ Stake Holders) (**Verification of *PEOs for Pharmacy)***	Actual Verifications as applicable	Yes	2	D (2)
			No	0	
3	Institute Website	Physical / Online Verification	Yes	1	I (1)
			No	0	
4	Computerized MIS system in place	Physical Verification	Yes	1	I (1)
			No	0	
5	Computerized Accounting System (Customized)	Physical Verification	Yes	1	I (1)
			No	0	
6	Campus wide Networking (LAN/ Wi-Fi/ Intranet)	Physical Verification	Yes	1	I (1)
			No	0	

C	**Redressal and Medical Care System**				
	The institute must have various committees in place, for conducting meetings at least twice a year. For all committees -Board containing names & contact details of members of the constituted committee be displayed at the prominent places of the Institute.	Appointment/ Office Order, Register Record of Redressal Session, Student Feedback			
1	Prevention & Prohibition of Ragging /Students grievance redressal Cell in Place		Yes	1	I (1)
			No	0	
2	Establishment of Internal Committee (IC) (As per Section 4 All India Council for Technical Education (Gender Sensitization, Prevention and Prohibition of Sexual Harassment of Women Employees and Students and Redressal of Grievances in Technical Institutions) Regulations, 2016.		If Yes - 1) No. of Complaints received- 2) No. of Complaints resolved -3) No. of Complaints pending -	1	I (1)
			No	0	
3	Committee for SC/ST		Yes	1	I (1)
			No	0	
4	Establishment of a Grievance Redressal Committee (GRC)		Yes	1	I (1)
			No	0	
5	Essential Student supportive Provisions				
a	All the students of the Institute are covered under insurance scheme of Government as per Department of Higher and Technical Education, Government Resolution dated 25.08.2011 and 16.10.2023.	Insurance Documents	Yes	1	I (07)
			No	0	
b	Availability of first Aid Comes Sick Room of area Approx. 20 Sq. m. , Availability of first Aid Medical Kit in All the Departments of the institute.	Physical Verification	Yes	1	
			No	0	
c	Arrangement of primary medical first aid training for Students and Staff ((minimum 1 per year) should include an Emergency First aid Artificial Respiration.,	Training Certificates & Photographs along with Medical Documents	Yes	1	
			No	0	

	Medical check-up of Students and Staff (minimum 1 per year)				
d	Display of emergency contact numbers of Government hospital, Govt. PHC and private hospitals nearby institute. The contact numbers of the Government (108) and public ambulance should be displayed and regularly coordinated with by the Institute.	Physical Verification	Yes	1	
			No	0	
e	Appointment of 1-2 coordinators at Institute level to handle an emergency medical situation in the institute. The coordinators should be trained for primary first aid medical treatment. The respective coordinator should contact to the hospital and help the students to get admitted in the hospital in an emergency situation.	Appointment/ Office Order, Register Record of Redressal Session, Student Feedback	Yes	1	
			No	0	
f	The MoU of the Institute with nearby hospital or the Doctor to make available the On-call medical facility. Availability of vehicle to carry the students in hospital in an emergency situation.	Document Verification	Yes	1	
			No	0	
g	Arrangement of workshop and other related programmes for tension free health of the students. A counsellor should be appointed for the above purpose by the Institute.	Document Verification & Student Feedback	Yes	1	
			No	0	
D	**Facilities available**				
1	Internet facility for Students (Internet band width required as per AICTE/COA/*PCI* Norms)	Paid Bills for last three months duration of internet facility.	Yes	3	I (3)
			No	0	
2	Cooperative /Central Store Facility	Physical Verification	Yes	1	I (1)
			No	0	
3	Availability of Digital Payment	Digital Wallet/ POS Machine	Yes	1	I (1)
			No	0	
II	**Academic Criteria**				

SN	Criteria & Sub-criteria	Documents to be Verified	Observations	Marks	I/D (M)
A	**Academic Audit**				
1	Internal Academic Audit (Once in 6 Months)	Audit Records maintained	Yes	3	D (3)
			No	0	
2	Awareness about CIAAN and its components	Proformas used/ Academic Records maintained/Understanding about curriculum components	CIAAN read, formats used, records maintained and curriculum component well interpreted	4	D (4)
			Formats used but unaware about curriculum components	0	
3	Quality of Test Papers	Cross Moderation done by peer faculty, TLO/COs and RUA coverage (*To be verified from the actual test papers and Curriculum document)*	Appropriate coverage and standards followed for 100% test papers .	3	D (3)
			Standards followed for More than 80% Q.Ps(80-99%)	2	
			Standards Followed for 50-79% Q.Ps	1	
			<50%	0	
B	**Learning Resources**				
1	LCD/ Smart Screen Projector in dept.	Dead Stock/Physical Verification	One	1	D (1)
			Nil	0	
2	Faculties using self -developed Power Point /Flash presentations/Readymade presentations as a teaching aid during imparting the instructions.	Physical Verification	70% or more	3	D (3)
			52-69%	2	
			25% To 49%	1	
			Less Than 25%	0	
3	Availability of Smart Classroom (at least one)	Physical Verification	Yes	2	D (2)
			No	0	
4	Use of Video Lectures / e-contents like Lab Manual, Bilingual material etc. published on MSBTE Portal for Teaching –Learning by faculties & students.	Based on feedback from faculty & students & its Verification	100%	5	D (5)
			More than 50%	3	
			less than 50%	0	
C	**Curriculum Coverage** as per MSBTE/*PCI*				
1	**Curriculum covered as per MSBTE/*PCI* norms** : Number of Lectures/Practical covered as per norms till date of Monitoring only	Faculty Teaching plan & execution Record, Student Feedback Formats, etc.	95%-100%	5	D (5)
			90% To 95%	4	
			80% To 89%	3	

			Less Than 80%	0	
2	**Curriculum covered as per MSBTE/*PCI* norms** : Theory subject **lesson plan** prepared & followed till date of Monitoring only		100%	5	D (5)
			90% To 99%	4	
			80% To 89%	3	
			Less Than 80%	0	
3	**Curriculum covered as per MSBTE/*PCI* norms** : **Lab plan** prepared & followed till date of Monitoring only		100%	5	D (5)
			90% To 99%	4	
			80% To 89%	3	
			Less Than 80%	0	
4	**Curriculum covered as per MSBTE/*PCI* norms** : Student feedback about satisfactory coverage of curriculum till date of Monitoring only		100%	6	D (6)
			90% To 99%	5	
			80% To 89%	3	
			Less Than 80%	0	
5	Curriculum implementation aspects	Departmental Minutes Copy Mapping table Calculation chart Justification table Action Taken Report(ATR) of last academic session (Fully/partially/not done)	Mapping of CO-PO with Curricular and Co-curricular activities	3/1/0	D (15)
			Attainment Level Target set by Program	3/1/0	
			Attainment level calculated	3/1/0	
			Attainment level achieved	3/1/0	
			Action taken report w.r.t. GAP Analysis	3/1/0	
6	**<u>Attendance</u>** : a. Whether Biometric attendance facility is available	Physical verification	Yes	2	D (2)
			No	0	
	b. Average attendance of theory Subject, Practical subject, Average attendance of all Progressive assessment for all Theory & Practical should be considered till date of monitoring	Attendance verification	90% or more	5	D (5)
			75% To 89%	4	
			Less Than 75%	0	
7	Remedial lectures conducted for weaker students.	Verification of 1) Remedial time table 2) Attendance sheet	Implemented (For each verified point)	4/3/2/1	D (4)
			Not Implemented	0	

		3) Result 4) Learning materials given			
8.	Number of Laboratories as per AICTE/COA ***(NA for Pharmacy)***	Verification	Yes	5	D (5)
			No	0	
	Only for Pharmacy *Number of Laboratories as per PCI – ER2020 Norms.* *a. Pharmaceutics Lab,* *b. Pharm. Chemistry Lab,* *c. Physiology, Pharmacology and Pharmacognosy Lab, Biochemistry, Clinical Pathology, Hospital and Clinical Pharmacy Lab,* *Model Pharmacy including DIC & PCC.*	Physical Verification	05 laboratories are available, and the setup is as per ER 2020	5	D (5)
			Laboratories are available in number, but the setup is not as per ER 2020	3	
			Less than five laboratories, or not available.	00	
9.	Availability of equipment in working condition for conduct of experiments / jobs as per MSBTE / *PCI/* ***COA*** norms	Dead stock register, Record of use, Student Feedback, Physical Verification	91% To 100%	5	D (5)
			86% To 90%	4	
			75% To 85%	3	
			Less Than 75%	0	
10	Conduct of refresher courses for direct 2nd year admitted students for acquiring pre-requisite technical knowledge to cater requirement of direct 2nd year subjects *(**NA for Pharmacy/** Architecture)*	Documents certified by Principal, Student feedback	Yes	3	D (3)
			No	0	
	For Pharmacy Only Number of assignments completed for applicable subjects as per *PCI* ER 2020 curriculum till date of monitoring only	Documents verified, Assessment of assignment as per Appendix, Student feedback	90 – 100%	2	D (2)
			80 – 89%	1	
			Less than 80%	0	
11	**Final year projects of the students** : Industry sponsored / Application oriented **(*NA for Pharmacy)***	Physical Verification	Industry Sponsored (Min 2 for the class of 60)	2/0	D (7)
			Application Oriented (More than 80%)	3/0	
			Project orientation conducted (notices+ attendance)	2/0	
	Documentation of any contemporary building /	Document Verification	100%	7	D (7)
			Less than 90%	5	

	heritage building by students (Only for Architecture)		Less than 80%	0	
	For Pharmacy Only Number of Field visits completed for applicable subjects as per *PCI* Norms	Documents verified, Assessment of assignment as per Appendix, Student feedback	90 – 100%	3	D (3)
			80 – 89%	2	
			Less than 80%	0	
12	Self-learning evaluation **(*NA for Pharmacy)***	Verify task given the	Judicial mix of SLA activities assigned considering students weaknesses/learning	5/0	D (7)
			Continuous Evaluation of SLA	2/0	
13	Bank of self-learning activities **(*NA for Pharmacy)***	Maintained and refined each year	Created + maintained + refined	3/2/ 1/0	D(3)
14	*Assessment of Students' Practical Training – Exam conduction as per PCI norms.* ***(Applicable only to Pharmacy)***	Evaluation, Examination Documentation, Project Report, Oral records etc.	*MSBTE Training Manual Implementation*	5/0	D (25) ***PH***
			Evaluation / Examination at Training Organization	5/0	
			Evaluation / Examination at Academic Institute	5/0	
			Additional Project/ Assignment completed during training Period	5/0	
			Mentoring System Adopted	5/0	
15	Assessment of Students eligible for Industrial Training / Internship **(*NA for Pharmacy)***	Evaluation, Examination Documentation, Industrial training Report, Oral records etc. (Eligible & Completed as per MSBTE Norms)	100% eligible students	3	D (3)
			Less than 100% eligible students	0	
16	Budget allocation and utilisation (Recurring, Non-Recurring & Maintenance) For Govt. and Aided institutions budget demanded, allocated and utilised	Physical verification of finance documents	Demanded, Allocated and 80% Utilized	4	D (4)
			Demanded, Allocated and utilization is between 40% to 80%.	2	
			Demanded, Allocated and utilization is less than 40%	0	
D	**Professional Output**				
1	Number of papers presented by the faculties in National / International Journals/ conference in last/ current* Academic Year	Letter of acceptance, Copy Published	3 or More Papers from Institute	2	I (2)
			2 Papers from Institute	1	
			Less Than 2	0	
2	a) Proposals submitted to MODROBS/FDP/	Documentation, Copies of the submission of	2 or more	2	I (2)
			1 To 2	1	

	RPS/ISRO/DST etc. during last/ current* Academic Year *(NA for Architecture)*	proposal with acknowledgment proof.	No	0	
	b) Workshop, Seminars conducted in association with IIa/ Architecture Engineers Associations (Only for *Architecture*)	Documentation, Copies of the submission, Photographs	3 or More	5	I (5)
			2 or More	3	
			1	1	
			No	0	
3	Number of consultancy / testing / patient counselling/*Pharmacy Practice* projects undertaken during last/ Current * year.	Documentation, Work Orders & Copy of agreement (MoU)	2 or More	2	I (2)
			1	1	
			No	0	
4	Whether Institute working as Examination Center/Deputing faculty to Exam Center for MSBTE in immediately concluded exam.	MSBTE Orders	Yes	1	I (1)
			No	0	
5	Whether Institute Involved in RAC/ RRAC/ DC/PCDC activities of MSBTE in Last / current * academic year (RAC/RRAC/DC/PCDC has been given to the deserving Institutes as per need by MSBTE).	MSBTE Orders	2 or More than 2 Activities	3	I (3)
			One Activity	2	
			Faculty Deputed	1	
			No Activity	0	
6	Whether Institute is working as 'Project institute for Model answers or Lab Manual Development' etc. for MSBTE in last / current * academic year.	MSBTE Orders	Development Center	2	I (2)
			Services rendered	1	
			No	0	
7	Professional Activities (Magazine/ Technical Magazine/ Exhibition of Student work))	Physical Verification	Yes	2	D (2)
			No	0	
8	Institutional Membership of professional societies/ students chapters. (*NA for Architecture*)	Physical Verification	Yes	2	I (2)
			No	0	
9	Mechanism of Student Feedback, Analysis and Corrective Action is adopted.	Student Feedback, Documentation, Suggestion Box etc.	Yes	5	D (5)
			No	0	
10	Adoption of Performance Appraisal and Development System (PADS) for Faculty and Supporting Staff.	Physical Verification	Yes	2	I (2)
			No	0	
11	Implementation of Career Advancement Scheme (CAS) *(NA for Architecture)*	CAS Documents verification	Yes	1	I (1)
			No	0	
12	Deputation of faculty for MSBTE Activities RAC	Deputation/Office Orders	35% or more	4	I (4)

	/Controller/MSCIT Vigilance/ University Exams., etc.		15% To 34 %	2	
			Less Than 15%	0	
E	**Efforts for faculty development and Industry involvement**				
1	Faculties deputed/sponsored for the improvement of academic qualification/Higher Education	Relieving Letter, Permission letter	2 or more	2	D (2)
			1 to 2	1	
			Nil	0	
2	MOUs with Professional organization /Industry/Vendors/Academician /Hospital/Community Pharmacy for the participation in academic development of the Department	Documents of joint activities performed under active MoU in current academic year	4 or more	3	D (3)
			2 to 4	2	
			Less Than 2	0	
3	Industry/Professional expert's lectures involved in academic activities of institute during last / current* academic year.	Invitation Letter, Photographs, Video Shooting	3 or more	4	D (4)
			1 to 2	2	
			Nil	0	
4	Number of Industrial/ Construction Site/Case Study visits /Hospital Visits / Pharmacy Visits organized during last/ current* academic year.	Permission letter from industry, Photographs, Copy of circular for students. Students' Feedback	3 or More	4	D (4)
			2 or More	3	
			1	2	
			Nil	0	
5	Faculties attended trainings for Soft skills, Content updation, Industrial trainings, COA TRC, Seminar, FDP ,Orientation Workshops etc. in last/ current* academic year.	Certificate of Participation	50% or more	4	D (4)
			30% to 49%	3	
			10% to 29%	2	
			Less Than 10%	0	
6	Establishment of Center of Excellence/Start up/Incubation Centre in collaboration with industries ***(NA for Pharmacy)***	Physical verification	Yes	2	D (2)
			No	0	

F	**Result and Placements**				
1	**Third Year**	Result Analysis	10-15	6	D (6)

	Academic Performance Index (API) of Third Year API =1.5* ((Mean of 3rdYear Grade Point Average of all successful Students on a 10 point scale) or (Mean of the percentage of marks of all successful students in Third Year/10)) x (successful students/number of students appeared in the examination) Successful students are those passed in all the final year courses ***(NA for Pharmacy)***		5-10	4	
			0-5	2	
2	**Second Year** Academic Performance Index (API) of Second Year API =2 * ((Mean of 2nd Year Grade Point Average of all successful Students on a 10 point scale) or (Mean of the percentage of marks of all successful students in second Year/10)) x (successful students/number of students appeared in the examination) Successful students are those passed in all the second-year courses ***(NA for Pharmacy)***		16-20	08	D (8)
			11-15	06	
			06-10	04	
			0-5	02	
	For Pharmacy: ***Second year/ Final year*** *Academic Performance score= 1.5 × Average API* *AP) = ((Mean of Final/Second Year Grade Point Average of all successful Students on a 10 point scale) or (Mean of the percentage of marks of all successful students*	As actual	15	18	D (18)
			12 – 14	14	
			9 – 11	10	
			6 – 8	06	

	in Final Year/10)) x (successful students/number of students appeared in the examination) *Successful students are those who passed the courses in the stipulated period.*		Less than 4	0	
3	**First Year** Academic Performance Index (API) of First Year API =2.5* ((Mean of 1stYear Grade Point Average of all successful Students on a 10 point scale) or (Mean of the percentage of marks of all successful students in First Year/10)) x (successful students/number of students appeared in the examination) Successful students are those passed in all the first year courses ***(NA for Pharmacy)***		21-25	10	D (10)
			16-20	8	
			11-15	5	
			5-10	2	
4	SI= (Number of students who graduated from the program without backlog)/(Number of students admitted in the first year of that batch and admitted in 2nd year via lateral entry) Average SI = Mean of success index (SI) for past three batches Success rate without backlogs in any year of study = 1 × Average SI ***(NA for Pharmacy)***	As actual	35-40	12	D (12)
			26-34	10	
			16-25	8	
			10-15	3	
			5-9	2	
	For Pharmacy: *Success Index (Students graduating in minimum stipulated time of two years)* *SI= Number of students graduated in minimum stipulated time)/ Number of students admitted.* *Average SI = Mean of success index (SI) for past three batches*	As Actual	20	20	D (20)
			16 – 19	16	
			11 – 15	12	
			05 – 10	08	
			Less than 5	00	

	Success rate score = 20 × Average SI				
5	SI= (Number of students who graduated from the program with backlog in the stipulated period of course duration)/(Number of students admitted in the first year of that batch and admitted in 2nd year via lateral entry) Average SI = mean of success index (SI) for past three batches Success rate = 1× Average SI ***(NA for Pharmacy)***	As actual	16-20	10	D (10)
			11-15	08	
			06-10	05	
			0-5	02	
6	Parent Meet	Organized meet once in a year verify Notice , attendance of parent, photo graph	Conducted and Documents well maintained	2/1	D (2)
			Not conducted	0	
7	Difference between percentage average marks of progressive test *(Sessional exam for PH)* & term end exam / *Annual Exam for PH* (only theory)	Result analysis	Less than 20%	10	D (10)
			20-40%	5	
			40-50 %	3	
			Moe than 40 %	0	
8	**Placement and higher studies** Placement and Higher studies Index = 40 × (1.25X + Y)/N where, X= Number of students placed in companies or Government sector through on/off campus recruitment Y = Number of students admitted to higher studies N =Total number of final year students ***(NA for Pharmacy)***	Placement and higher studies data with authentic document (appointment order/ offer letters/ payment slips/ valid identity cards/ D.S.E allotment details, etc)	40>	10	D (10)
			31to 40	08	
			21-29	05	
			Less 20	02	
	For Pharmacy ***Placement and higher studies*** *Placement and Higher studies Index = 20 × (x + y)/N* *Where, x = Number of students placed in Industries/ Hospitals/ Government sector through on/off campus recruitment or opted for Entrepreneurship*	Placement and higher studies data with authentic document (appointment order/ offer letters/ payment slips/valid identity cards/DSP allotment details	20	12	D (12)
			16 – 19	10	
			11 – 15	08	
			05 – 10	06	
			Less than 5	00	

	y = No. of students admitted to higher studies *N = Total No. of Final Year Students*	etc)			
9	Testing & consultancies ***(NA for Pharmacy)***	Verify with document	Yes	01	D (1)
			No	0	
10	Involvement in MSBTE activities (curriculum/ question paper/lab manual/bilingual / Technical competitions/ FDP organisation etc.)	Verify with order and completion task document	More than 50% staff	05	D (5)
			40%-49%	03	
			31%-39%	02	
			Less than 20%	0	
11	Programs conducted for personality development during last/current* year	Documentation, Photographs, expenditure vouchers (if applicable)	2 or more	3	D (3)
			1	2	
			Nil	0	
12	Participation/Organization Sports	Document, Certificates, Photographs Verification	Zonal Sports	3	D (3)
			Inter Zonal Sports	2	
			Institute Level	1	
13	Entrepreneurship Development Cell established	Physical verification	Yes	1	I (1)
			No	0	
14	Students Mentoring system (Professional guidance/ Career advancement /All -round development/ Course/Lab work specific, mentoring programs conducted) frequency of mentoring (Excluding Personality Development Programs)	Physical Verification	2 or more activities / year	2	I (2)
			1 activity / year	1	
			No activities	0	
15	Final Year pass outs going for self-employment	Alumni Record Details	10% or Above	2	D (2)
			5% To 9%	1	
			Less than 5%	0	
16	Students completing diploma program within stipulated period	Result analysis	More than 60%	5	D (5)
			30% To 59%	3	
			Less than 30%	0	
17	Percentage of Students Appeared for ESE (End Semester Exam) with respect to the actual enrollment.	Verification of Enrollment records & result analysis.	Above 90%	4	D (4)
			75% To 89%	2	
			Less than 75%	0	

18	**Mass Copy Case**	**MSBTE punishment order in Institute login/ Show cause to students/ MSBTE RAC Malpractice letter**	**Unsafe for Academics due to prove incidence of mass copy at Institute Level**	-	leading to "Poor"
G	**Co-curricular Activities**				
1	Organizing Technical Quiz / Seminar / Paper Presentation /Project Competition event last /current* year	Event Leaflets, Expenditure details, Photographs, participant feedback, etc.	State Level Activity in association with Govt. / MSBTE/Industry	2	D (2)
			Any other	1	
			No Activity	0	
2	Number of state/ national / international level awards won by the Institute in workshop /seminar/ conference/ project competitions Research organized in association with industry/ Universities / MSBTE/ Government body during Last 2 years.	Certificates	2 or more Awards	3	I (3)
			1 Award	2	
			No	0	
3	Awards won by the Institute's student in workshop /seminar/ conference/ project competitions Organized by any other organizations during last 2 years.	Certificates	2 or more Awards	2	I (2)
			1 Award	1	
			No	0	
4	Conduction of Induction Training program for newly admitted students	Related document verification	Yes	1	I (2)
			No	0	
5	Facility to watch MOOCS Courses through SWAYAM/Spoken Tutorials	Related Documents	Yes	2	D (2)
			No	0	
6	Contribution in MSBTE Newsletter	Related Documents	Sent at least one Activity for every issue of the Newsletter	1	I (2)
			The Activity of the issue is printed in MSBTE Newsletter	2	

III	**Socio- Economic Criteria**				
A	**Alumni**				
1	Whether alumni association registered or not? If Yes give No. of past students registered.	Formation of Alumni, Records of registration for Alumni, Relevant Documents	Yes	1	I (1)
			No	0	
2	Alumni meet Conducted once in a year?		Yes	1	I

			No	0	(1)
3	Contribution by Alumni (Expert lectures/Placement/support/ Funding/Sponsorship etc.)		Yes	1	I (1)
			No	0	
B	**Socio-Industry Involvement**				
4	Activities with respect to CEP programs / NSS/ Community Development Through Polytechnics (CDTP), PMKVY, CSR organized during last / current * year.	Event Leaflets, Expenditure details, Photographs, participant feedback, etc.	2 or more	2	I (2)
			1	1	
			No	0	
5	Any other social activities – Earn and learn/ NSS/ NCC/ Community services/Student welfare etc.		2 or more	2	D (2)
			1	1	
			No	0	

***-- Last year is considered for FIRST monitoring and Current year is considered for SECOND monitoring of the respective year.**

Note: 1. *For Pharmacy & COA Institutes, Criteria & Sub-criteria, observations & marks are highlighted in Italics respectively. All other Parameters remain same.*

2. This revised pro-forma is applicable for Institute Monitoring for all Diploma courses.

3. Compliance Report should be asked for all the institutions & action taken report (ATR) to be inspected by the Inspection Committee.