

M.TECH. ENGG. EDUCATION – ENTRANCE EXAMINATION SYLLABUS

PART A: NITTT MODULES	30 MARKS	30 MCQS	SYLLABUS - 8 NITTT MODULES
PART B: PEDAGOGY	10 MARKS	10 MCQS	PEDAGOGY AND TEACHING STRATEGIES
PART C: VERBAL ABILITY AND READING COMPREHENSION	10 MARKS	10 MCQS	VERBAL ABILITY & READING COMPREHENSION

PART A – NITTT Modules

1. Orientation Towards Technical Education and Curriculum Aspects: Introduction to technical education, Curriculum development and design, Pedagogical approaches
2. Professional Ethics and Sustainability: Ethical principles in technical education, Sustainable development and environmental awareness, Social responsibility
3. Communication Skills, Modes and Knowledge Dissemination: Effective communication techniques, Teaching strategies and methods, Assessment and evaluation
4. Instructional Planning and Delivery: Lesson planning and design, Instructional materials and resources, Classroom management
5. Technology Enabled Learning and Life-Long Self Learning: Integration of technology in teaching, Online learning and blended learning, Professional development and lifelong learning
6. Student Assessment and Evaluation: Assessment techniques and tools, Grading and reporting, Feedback and evaluation
7. Creative Problem Solving, Innovation and Meaningful R&D: Problem-solving strategies, Innovation and creativity, Research and development
8. Institutional Management and Administrative Procedures: Institutional governance and administration, Financial management, Human resource management

PART B – PEDAGOGY AND TEACHING STRATEGIES

The content is related to teacher education or educational studies, assesses a candidate's understanding of teaching methods, and classroom management strategies.

1. TEACHING METHODOLOGIES AND STRATEGIES

- a. Instructional Methods:

Teacher-centred vs. Learner-centred methods, Direct Instruction, Inquiry based learning, Problem-based learning, Cooperative learning.

b. Teaching Aids and Resources:

Use of technology in teaching, Audio-visual aids, and Digital tools for education.

c. Lesson Planning:

Components of a lesson plan, Bloom's Taxonomy, Designing objectives and outcomes.

d. Assessment and Evaluation:

Types of assessment (formative, summative), Tools and techniques for evaluation, Continuous and Comprehensive Evaluation (CCE).

2. CLASSROOM MANAGEMENT

a. Classroom Environment:

Creating an inclusive and conducive learning environment, Classroom discipline, Managing diverse learners.

b. Teacher's Role:

Facilitator, Mentor, Guide, Understanding teacher-student relationships.

3. CURRICULUM DEVELOPMENT

a. Principles of Curriculum Design:

National Curriculum frameworks, Design models, Credits, Autonomy

b. Curriculum Implementation:

Strategies for implementing curriculum, Role of teachers, Adaptation to local contexts.

4. EDUCATIONAL TECHNOLOGY

a. ICT in Education:

Integrating technology in teaching, E-learning platforms, Blended learning.

b. Digital Pedagogy:

Online teaching methods, Use of multimedia in education, Digital literacy.

PART C – VERBAL ABILITY & READING COMPREHENSION

1. Verbal Ability and Reading Comprehension - Reading Comprehension:
Passage-based questions, Inference, Main Idea, Author's Perspective
2. Verbal Ability: Sentence Correction, Grammar, Vocabulary, Synonyms and Antonyms, Para Jumbles, Para Completion, Critical Reasoning, Fact Inference Judgment