

# Manipal Entrance Test (MET 2019) Syllabus

**Applicable Programs: Master of Technology (MTech), Master of Engineering (ME)**

## Online MET 2019 Test Details

- Test Duration: 90 minutes
- Based on the qualifying degree, candidate is expected to select any ONE of the Test disciplines listed below, in the online test booking system (OTBS). Once test discipline is selected, no request for change of discipline will be considered under any circumstances
- Total Questions: 60 questions comprising of Chosen Discipline (50 questions) & Engg Maths (10 questions)
- Marking Scheme: +4 awarded for correct answer, -1 deducted for wrong answer
- Student can register for a total of 2 attempts based on Test Centre / Slot availability, best score amongst the attempts will be considered
- All candidates possessing valid GATE score will be given 10 % additional marks to the best score amongst the attempt(s) and then ranked in the merit list. Additional marks will NOT be awarded if GATE score card is not uploaded before the last date
- There will be two ranks allotted: General Rank based on the overall test score, Stream rank based on the overall score amongst the chosen discipline. The counseling process will be as per the general rank only.

## Note

- All candidates are requested to check the eligibility of MTech / ME courses offered, before choosing the test discipline

The brief syllabus of the various test disciplines & Engg Maths for the respective domains are as follows

### 1. Biotechnology

Process Calculations and Thermodynamics, Fluid Mechanics and Mechanical Operations, Heat Transfer, Mass Transfer, Chemical Reaction Engineering, Instrumentation and Process Control, Bioprocess Engineering and Downstream Processing, Molecular Biology and Genetic Engineering, Biochemistry and Bioinformatics, Fermentation Engineering and Enzyme Technology, Microbiology and Immunotechnology.

Engg Maths: Linear Algebra, Differential Equations, Probability & Statistics, Numerical Methods, Transform Theory

### 2. Chemical Engineering

Process Calculations and Thermodynamics, Fluid Mechanics and Mechanical Operations, Heat Transfer, Mass Transfer, Chemical Reaction Engineering, Instrumentation and Process Control, Plant Design and Economics, Chemical Technology, Material of Construction and Corrosion, Energy Engineering, Pollution Control and Safety.

Engg Maths: Linear Algebra, Differential Equations, Probability & Statistics, Numerical Methods, Transform Theory

### 3. Civil Engineering

Engineering Mechanics, Strength of Materials, Design of Steel and Concrete Structures, Structural Analysis, Geotechnical Engineering, Foundation Engineering, Surveying, Transportation Engineering, Construction Planning - Organization and Management, Environmental Engineering, Fluid Mechanics, Water Resources Engineering, Concrete Technology, Engineering Materials, Estimations and Specification.

Engg Maths: Linear Algebra, Calculus, Differential Equations, Probability & Statistics, Numerical Methods

### 4. Computer Science & Information Technology

Programming Languages, Data Structure, Logic Design & Circuits, Computer Architecture, Operating Systems, Database Systems, Computer Networks, Design and Analysis of Algorithms, Software Engineering, Object Oriented Analysis and Design.

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Engg Maths: Probability & Statistics, Numerical Methods, Combinatorics, Graph Theory, Mathematic & Predicate logic

## 5. Electrical Engineering

Electric Circuits Analysis, Measurements & Instrumentation, Linear and Digital control system, Signals, Systems and Signal Processing, Analog Devices & Circuits, Digital Design and Computer Architecture, Microprocessors and Micro controllers (8-bit family), Electrical Machinery & Drives, Power Electronics, Power & Energy Systems, Utilization of Electrical Power.

Engg Maths: Linear Algebra, Differential Equations, Probability & Statistics, Numerical Methods, Transform Theory

## 6. Electronics & Communication Engineering

Electric Circuit Analysis, Analog Devices and Circuits, Digital Design & VHDL, Electro Magnetic Waves, Analog Communication, Digital Communication, Antennas & Propagation, Microprocessor & Micro controllers (16-bit family), Signal Processing, Linear and Digital control system.

Engg Maths: Linear Algebra, Complex Variables, Probability & Statistics, Numerical Methods, Transform Theory

## 7. Instrumentation & Control Engineering

Electric Circuits Analysis, Electrical & Electronic Measurements, Transducers and Instrumentation, Linear and Digital Control System, Signals, Systems and Signal Processing, Analog Devices & Circuits, Digital System Design, Microprocessors and Micro controllers (8-bit family), Modern Control Theory and Process control, Analytical, Optical and Biomedical Instrumentation.

Engg Maths: Linear Algebra, Differential Equations, Probability & Statistics, Numerical Methods, Transform Theory

## 8. Mechanical Engineering

Engineering Mechanics, Strength of Materials, Design of Machine Elements, Basics of Manufacturing Science, Measurement & Metrology, Theory of Machines, Mechanical Vibrations, Thermodynamics & Heat Transfer, Material Science & Metallurgy.

Engg Maths: Linear Algebra, Calculus, Differential Equations, Probability & Statistics, Numerical Methods

## 9. Printing & Media Technology

Pre-Press process, Digital Pre-Press, Electronic Composition and software used, Color Management concepts and workflow, Types of Printing Inks and Substrates, Properties and Testing, Conventional and Digital Printing, Principle, Types and Applications, Print finishing, Packaging, Types, Materials and Design, Total Quality Management, Safety and Environment Management in Printing Industry.

Engg Maths: Linear Algebra, Calculus, Differential Equations, Probability & Statistics, Numerical Methods.

♣ Best of Luck ♣