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School of Studies of Engineering & Technology

अभियांत्रिकी एवं प्रौद्योगिकी अध्ययनशाला

**Syllabus and Guidelines For NON-GATE Candidates For M.Tech
Admission Entrance Test 2022-23 in Different Departments of School of
Studies of Engineering and Technology**

PART-A (Engineering Mathematics)

(Common For All Branches)

Linear Algebra: Matrix algebra, systems of linear equations, eigenvalues and eigenvectors.

Calculus: Functions of single variable, limit, continuity and differentiability, mean value theorems, indeterminate forms; evaluation of definite and improper integrals; double and triple integrals; partial derivatives, total derivative, Taylor series (in one and two variables), maxima and minima, Fourier series; gradient, divergence and curl, vector identities, directional derivatives, line, surface and volume integrals, applications of Gauss, Stokes and Green's theorems.

Differential equations: First order equations (linear and nonlinear); higher order linear differential equations with constant coefficients; Euler-Cauchy equation; initial and boundary value problems; Laplace transforms; solutions of heat, wave and Laplace's equations.

Probability and Statistics: Definitions of probability, sampling theorems, conditional probability; mean, median, mode and standard deviation; random variables, binomial, Poisson and normal distributions.

PART-B (Department (Domain) Specific)

Note: - This will be same as the syllabus of GATE-2022 of specific departments/ streams/ disciplines such as Civil Engineering, Chemical Engineering, Computer Science and Information Technology, Electronics and Communication Engineering, Production and Industrial Engineering and Mechanical Engineering.

Guidelines For Entrance Exam of M.Tech Admission 2022-23

1. There will be a total of 100 multiple-choice questions on the entrance test, divided into two sections: **Part/Section A** will include engineering mathematics (30 questions), and **Part/Section B** will cover department-specific topics (70 Questions). For all branches, **Part /Section A - Engineering Mathematics** will be common.
2. Syllabus of **Part / Section A (Engineering Mathematics)** will be as above mentioned above and syllabus of Part / Section B will same as the syllabus of GATE-2022 of specific departments/ streams/ disciplines.
3. Duration of the entrance test will be three hours.
4. Mode of the entrance test will be offline, and scientific calculator will be allowed during the examination.
5. Computer Science Engineering and Information Technology will have common set of question paper.
6. Each question will be worth two marks. There will be 200 total marks on the questions paper. There will be no negative marking.
7. Tentative schedule of entrance test is 28-10-2022. Candidates are advised to visit www.ggu.ac.in for further updates.