

ENGINEERING MATHEMATICS TEST SERIES

GATE 2019 SCHEDULE: ELECTRONICS & COMMUNICATION ENGINEERING

Test Date	Test Type	Syllabus [EM- Engineering Mathematics]	No. of Question	Marks	Duration
30/07/2018	EM: Minor Test- 1	LINEAR ALGEBRA: Vector space, basis, linear dependence and independence, matrix algebra, eigen values and eigen vectors, rank, solution of linear equations - existence and uniqueness.	33	50	90 min
30/08/2018	EM: Minor Test- 2	CALCULUS: Mean value theorems, theorems of integral calculus, evaluation of definite and improper integrals, partial derivatives, maxima and minima, multiple integrals, line, surface and volume integrals, Taylor series. VECTOR ANALYSIS: Vectors in plane and space, vector operations, gradient, divergence and curl, Gauss's, Green's and Stoke's theorems.	33	50	90 min
29/09/2018	EM: Minor Test- 3	DIFFERENTIAL EQUATIONS: First order equations (linear and nonlinear), higher order linear differential equations, Cauchy's and Euler's equations, methods of solution using variation of parameters, complementary function and particular integral, partial differential equations, variable separable method, initial and boundary value problems.	33	50	90 min
30/10/2018	EM: Minor Test- 4	COMPLEX ANALYSIS: Analytic functions, Cauchy's integral theorem, Cauchy's integral formula; Taylor's and Laurent's series, residue theorem. NUMERICAL METHODS: Solution of nonlinear equations, single and multi-step methods for differential equations, convergence criteria.	33	50	90 min
30/11/2018	EM: Minor Test- 5	PROBABILITY AND STATISTICS: Mean, median, mode and standard deviation; combinatorial probability, probability distribution functions - binomial, Poisson, exponential and normal; Joint and conditional probability; Correlation and regression analysis.	33	50	90 min