1.	1st 2nd & 3rd week	Characteristic equation of a matrix –Eigen values and Eigen vectors – Properties of Eigen values – Diagonalization of matrix – Cayley-Hamilton Theorem (without proof) verification – Finding Inverse and Power of a matrix using it – Quadratic form – Definite and indefinite forms – Orthogonal reduction of quadratic form to canonical form.	Chalk and talk.
2.	4th & 5th week	Introduction to sequences. Infinite series- Convergence Tests for positive term series – Comparison, integral test, Root, Ratio test, Raabe's tests. logarithmic test.	
3.	6th week	Assessment -1	
4.	6th , 7th & 8th week	Alternating series – Leibnitz's rule – Absolute and Conditional Convergence. Riemann rearrangement theorem (without proof). Functions of several variables – Partial derivatives and Transformation of variables – Jacobian and its Properties. Taylor series- Maxima and Minima of function of two variables.	
5.	9th & 10th week	Double integral – Changing the order of Integration – Change of variables from Cartesian to Polar Coordinates – Area using double Integral in Cartesian and Polar Coordinates	
6.	11th week	Assessment - 2	
7.	11th week	Triple integral – Change of Variables from Cartesian to Spherical and Cylindrical Coordinates – Volume using double and triple integrals.	
8.	After 12th week	Assessment - 4	

COURSE ASSESSMENT METHODS

S. No.	Mode of Assessment	Week/Date	Duration	% Weightage
1.	Assessment - 1	6th week	1 hour	20%
2.	Assessment - 2	11th week	1 hour	20%
3.	Assessment - 3		Will be announced at the time of	10%