LESSON PLAN

Name of the Faculty:	
Discipline:	**B.Tech. (All branches)**
Semester:	**1st**
Subject:	**Mathematics-I [B24-BSC-107]**
Work Load (Lecture/Practical) per week (In hours):	**Lecture – 03, Tutorial - 01**

Sr. No.	Lecture No.	Topic (Including Assignment/Test/Quiz/Activity)	Pedagogy (PPT/Video Lecture/Activity/Marker & Board/Case-Study)	Course Outcome
1	L1	**Module1:** Introduction to Beta Gamma Function and their properties	White Board	CO1
2	L2	Evaluation of Definite and Improper Integrals	White Board	CO1
3	L3	Evaluation of integrals using Beta Gamma Functions	PPT & White Board	CO1
4	L4	Applications of definite integral to Volume of Revolution	PPT& White Board	CO1
5	L5	Numerical Practice for finding Volume of Revolution	PPT & White Board	CO1
6	L6	Applications of definite integral to Surface of Revolution	PPT & White Board	CO1
7	L7	Numerical Practice for finding Surface of Revolution	PPT& White Board	CO1

8	L8	Indeterminant Forms and L'Hospital rule	White Board	CO1
9	L9	Assignment-I	Hard copy	CO1
10	L10	**Module2:** Convergence of Sequence and Series	PPT & white board	CO2
11	L11	Test for Convergences: Comparison Test	PPT & white board	CO2
12	L12	D'Alembert's test, Logarithmic test,	PPT & white board	CO2
13	L13	Cauchy's root test and Raabe's test	PPT & white board	CO2
14	L14	Introduction to Fourier Series and Dirichlet Condition	White board	CO2
15	L15	Fourier expansion over other intervals	White Board	CO2
16	L16	Fourier expansion for odd and even functions	white board	CO2
17	L17	Numerical based on Fourier expansion	PPT & white board	CO2
18	L18	Half range Cosine series	PPT & white board	CO2
19	L19	Half range Sine Series	PPT & white board	CO2
20	L20	Numerical Practice	white board	CO2
21	L21	Mid Term Test- I	Hard copy	CO1 & CO2
22	L22	**Module3:** Taylor's series (for one and more variables)	PPT & white board	CO3
23	L22	Series for exponential, trigonometric and logarithm functions	white board	CO3

24	L23	Partial Derivatives	white board	CO3
25	L24	Total Differential	PPT & white board	CO3
26	L25	Chain rule for differentiation	white board	CO3
27	L26	Homogeneous functions and Euler's Theorem	PPT & white board	CO3
28	L27	Jacobian	PPT & white board	CO5
29	L28	Maxima, Minima and saddle points	PPT & white board	CO3
30	L29	Method of Lagrange Multipliers	white board	CO3
31	L30	Numerical practice	PPT & white board	CO3
32	L31	Assignment - II	Hard Copy	CO3
33	L32	Mid Test Term-II	Hard Copy	CO2 & CO3
34	L33	**Module4:** Multiple Integration: Double integral (Cartesian)	White Board	CO4
35	L34	Double integral (Cartesian) Continued	PPT & White Board	CO4
36	L35	Change of order of integration	PPT & White Board	CO4
37	L36	Change of variables	PPT & Chalk	CO4
38	L37	Application to Area	White Board	CO4
39	L38	Applications to volumes	White Board	CO4
40	L39	Triple integrals	White Board	CO4
41	L40	Orthogonal Curvilinear Coordinates	White Board	CO4
42	L41	Assignment - III	Hard Copy	CO3 & CO4

43	L42	Revision Module1 & 2	Lecture	CO1 & CO2
44	L43	Revision Module 3&4	Lecture	CO3 & CO4

(COURSE INCHARGE)