



COLLEGE OF ENGINEERING & TECHNOLOGY

HUMANITIES & APPLIED SCIENCE DEPARTMENT

B.E. 1st SEMESTER

SUBJECT: MATHEMATICS-1

SUBJECT CODE:3110014

Sr.No.	Topic	Link	By
1	Indeterminate Form and L-Hospital's rule	https://youtu.be/oysAwABcsFo	Bhagwan Singh Vishwakarma / YouTube
2	Indeterminate Form and L-Hospital's rule	https://youtu.be/rWLEjipZGQw	Bhagwan Singh Vishwakarma / YouTube
3	Improper Integral and Its Convergence	https://youtu.be/7WoMx6tfp1U	Dr.Gajendra Purohit/YouTube
4	Infinite Series	https://youtu.be/vfg1mmsMMM	Dr.Gajendra Purohit/YouTube
5	Infinite Series - Comparison Test For Convergence of Series	https://youtu.be/S-qzRWJOlf8	Dr.Gajendra Purohit/YouTube
6	Infinite Series - Cauchy's Integral Test For Convergence of Series	https://youtu.be/2SJ7vcJpTd8	Dr.Gajendra Purohit/YouTube
7	Infinite Series - D'Alembert's Ratio Test For Convergence of Series	https://youtu.be/9sLsX9DV5Fs	Dr.Gajendra Purohit/YouTube
8	Infinite Series -Cauchy Root Test For Convergence of Series	https://youtu.be/tF4vDQ6X7Kg	Dr.Gajendra Purohit/YouTube
9	Alternating Series Leibniz Test Convergence Of Infinite Series	https://youtu.be/AG5mvNsxIXo	Dr.Gajendra Purohit/YouTube
10	Absolute Convergence Conditionally Convergent Infinite Series	https://youtu.be/EX6zkLpHlec	Dr.Gajendra Purohit/YouTube

11	Fourier Series for continuous function	https://youtu.be/Jx_rfsos3yA	Bhagwan Singh Vishwakarma / YouTube
12	Fourier Series for Discontinuous Function	https://youtu.be/m7Sjkshua8g	Bhagwan Singh Vishwakarma / YouTube
13	Fourier Series - Half Range Fourier Sine and Cosine series	https://youtu.be/IF5bovh-oXE	Bhagwan Singh Vishwakarma / YouTube
14	Fourier Series examples and solutions for Even and Odd Function	https://youtu.be/NdouX5-KD6Y	Dr.Gajendra Purohit/YouTube
15	Limit of a function Two Variable	https://youtu.be/ZXNrEI5IIWs	Dr.Gajendra Purohit/YouTube
16	Limit of a function Two Variable	https://youtu.be/jydFFxeWYkI	Dr.Gajendra Purohit/YouTube
17	Continuity of a Function Two Variable Function	https://youtu.be/Xa8yAjojMSs	Dr.Gajendra Purohit/YouTube
18	Partial Differentiation #1	https://youtu.be/8DAkin6ZUbw	MathCom Mentors/YouTube
19	Partial Differentiation#2	https://youtu.be/4QDGFs-i120	MathCom Mentors/YouTube
20	Partial Differentiation#3	https://youtu.be/r5WfK4NhOiM	MathCom Mentors/YouTube
21	Partial Differentiation#4	https://youtu.be/cfXYKQSDpCQ	MathCom Mentors/YouTube
22	Partial Differentiation#5	https://youtu.be/C0zv1BYpEIQ	MathCom Mentors/YouTube
23	Partial Differentiation#6	https://youtu.be/zkP8mIYmGrg	MathCom Mentors/YouTube
24	Euler's Theorem #1	https://youtu.be/k8UVO07ZwiE	MathCom Mentors/YouTube
25	Euler's Theorem #2	https://youtu.be/oU24fKkAh-w	MathCom Mentors/YouTube
26	Euler's Theorem #3	https://youtu.be/IQxwKzjLm7E	MathCom Mentors/YouTube
27	Change of Variables #1	https://youtu.be/tFpnjDidcmU	MathCom Mentors/YouTube
28	Change of Variables #2	https://youtu.be/7f9b0wYgeAo	MathCom Mentors/YouTube
29	Change of Variables #3	https://youtu.be/Tuy28H3G7Uc	MathCom Mentors/YouTube
30	Chain rule-I	https://youtu.be/McT-UsFx1Es	NPTEL
31	Chain rule-II	https://youtu.be/_1TNtFqiFQo	NPTEL
32	Tangent planes and Normal lines	https://youtu.be/HyWagR_7x-o	NPTEL

33	Total Differentiation #1	https://youtu.be/puPJioLSW0M	MathCom Mentors/YouTube
34	Total Differentiation #2	https://youtu.be/LCZjeaymmW4	MathCom Mentors/YouTube
35	Total Differentiation #3	https://youtu.be/mV2gbwOZma0	MathCom Mentors/YouTube
36	Total Differentiation #4	https://youtu.be/P21kcZDHO_w	MathCom Mentors/YouTube
37	Maxima & Minima #1	https://youtu.be/lxksRct1QOY	MathCom Mentors/YouTube
38	Maxima & Minima #2	https://youtu.be/E-4e4_vxt84	MathCom Mentors/YouTube
39	Lagrange Method of Multipliers #1	https://youtu.be/PJ61NRe39xc	MathCom Mentors/YouTube
40	Lagrange Method of Multipliers #2	https://youtu.be/njT4fPsc_0w	MathCom Mentors/YouTube
41	Lagrange Method of Multipliers #3	https://youtu.be/YzO_aVjwOWQ	MathCom Mentors/YouTube
42	Lagrange Method of Multipliers #4	https://youtu.be/rxaVIRzKRGE	MathCom Mentors/YouTube
43	Double Integral - Concept & Limits II Geometric meaning	https://youtu.be/PzydVW0Ehmc	Bhagwan Singh Vishwakarma / YouTube
44	Double Integral	https://youtu.be/ejYkL8XIOao	Bhagwan Singh Vishwakarma / YouTube
45	How to find the limits of a double integral	https://youtu.be/rOFSumVuBTc	Bhagwan Singh Vishwakarma / YouTube
46	Double Integral - Change of order of Integration	https://youtu.be/l8M2cEZ_AeM	Bhagwan Singh Vishwakarma / YouTube
47	Triple Integral	https://youtu.be/F9DGN_iynw0	Bhagwan Singh Vishwakarma / YouTube
48	Concept of matrix and determinant	https://youtu.be/ZQI6IBlLfY	Bhagwan Singh Vishwakarma / YouTube
49	Elementary Row Operations, Echelon Form and Reduced Row Echelon Form	https://youtu.be/MB6nEwXseRM	maths capsule/YouTube
50	Rank of matrix	https://youtu.be/56dEt9EOZ_M	Bhagwan Singh Vishwakarma / YouTube
51	Inverse of Matrix by Elementary Row Operation	https://youtu.be/RdX4E97qj-Q	Bhagwan Singh Vishwakarma / YouTube

52	Consistency of Linear Non-Homogeneous Equations	https://youtu.be/41Y38WjHbtE	Bhagwan Singh Vishwakarma / YouTube
53	Eigen Value and Eigen Vector	https://youtu.be/ZX5YnDMzwbs	Bhagwan Singh Vishwakarma / YouTube
54	Cayley Hamilton Theorem & its application	https://youtu.be/H53VgxdohRM	Bhagwan Singh Vishwakarma / YouTube
55	Diagonalization of a Matrix	https://youtu.be/ERB5GY1P-Ns	Btechguru BodhBridge ESPL/YouTube
56	Concept of Gradient	https://youtu.be/k9bjIIVhTvg	Bhagwan Singh Vishwakarma / YouTube