

Dayanand Science College, Latur

E-Contents (Video Lectures)

Mathematics

Class: B. Sc. III Year (Sem-V)

Name of Paper: Numerical Analysis

Sub: Mathematics

Paper No: XIV (C) (MT315)

SRTMUN, SPPU, MU, KUD, AMU, RTMNU, BAMU, NMU, SGBAU etc.

Curriculum

Links of Video Lectures for UG, PG: Dr. Sidheshwar Bellale

Director, Mathematics Research Centre, Dayanand Science College Latur

Lect. No.	Name of Units / Articles	Video Lecture Links
I	Unit-I,II,III,IV	https://youtube.com/playlist?list=PL7TANb4Sj71rpZXARREjMefYtLn7DQTAAY
	Unit-I	
1	Syllabus and Pattern	https://youtu.be/g9csGhKM1bA
2	Differences	https://youtu.be/TAnHLhbtWko
3	Higher Differences	https://youtu.be/a3U7MtbbXoI
4	Theorem on nth Differences	https://youtu.be/plS5NYBs_kY
5	Factorial Notation	https://youtu.be/XaIF56SI5AQ
6	Factorial Function	https://youtu.be/u5QJvIsHh0g
7	The Operator E	https://youtu.be/7aKXiWs0OJO
8	Properties of E and Δ	https://youtu.be/IF_Rdvqn4DE
9	Examples Properties of E and Δ	https://youtu.be/gN8-z6SeBXY
10	Examples on difference operators	https://youtu.be/MM0A16nDj8A
11	Examples on E and Δ	https://youtu.be/b0T46JBMbw4
12	Interpolation Extrapolation	https://youtu.be/5WfqDiDSLqk
13	Newton-Gregory Forward Interpolation	https://youtu.be/YGEduwX1yss
14	Newton- Gregory Forward and Backward Interpolation	https://youtu.be/dwlm_tyaRNk
15	Working tables	https://youtu.be/N0yZC8vz8b0
16	Examples on Newton- Gregory Forward and Backward Interpolation	https://youtu.be/E1XxIzvwosE
17	Equidistant Terms with one or more Missing Terms	https://youtu.be/I3QbFPaj6qk
18	Unequal Intervals	https://youtu.be/vdPwFkaTvCc
19	Interpolation for Unequal Intervals of the arguments	https://youtu.be/vdPwFkaTvCc
20	Divided Differences with Unequal Intervals	https://youtu.be/mRj9q6gGWzw
21	Divided Differences, when Two or More Arguments are Same	https://youtu.be/syJ4K7tsWqw

22	Properties of Divided Differences	https://youtu.be/PGZKkfPvups
23	Properties of Divided Differences	https://youtu.be/hn9XXdXGB84
24	Newton's formula for Unequal intervals	https://youtu.be/JbMZ25Sdt94
25	Lagrange's formula	https://youtu.be/-m0VofKtRwM
26	Examples on Lagrange's formula	https://youtu.be/DObXMINZbwg
27	Examples on Lagrange's formula	https://youtu.be/qRUqfL1EJQg
28	Central Differences	https://youtu.be/Sgdxm6P7BxU
29	Mean Differences	https://youtu.be/1zn7DbDNsXo
30	Gauss formula	https://youtu.be/ZBJeFwD0guY
31	Examples on Gauss formula	https://youtu.be/vwHr1LmHhas
32	Bessel and Strling formula	https://youtu.be/ZhMWfXXkoys
33	Examples on Bessel and Strling formula	https://youtu.be/PafxstrAF20
34	Numerical Differential	https://youtu.be/-6Wny8dJ5S4
35	Unsymmetrical Expressions	https://youtu.be/5eP5_2UJhcg
36	General Quadrature formula	https://youtu.be/L6ipQQnFayA
37	Simpson's Formula	https://youtu.be/1PnC5ZQofw0
38	Weddle's Rule	https://youtu.be/13YwtPs7XUw
39	Examples on Numerical Integral	https://youtu.be/Z9-6Yi4TQ58
40	Examples on Numerical Integral	https://youtu.be/U1aY6Thsl6k
41	Numerical solution ODE	https://youtu.be/-7PQ-V5uvvs
42	Numerical solution ODE: Euler Method	https://youtu.be/zLKeOQu7SME
43	Eular Modified Method	https://youtu.be/jm4J9OW71JU
44	Picards Method	https://youtu.be/WV9OMs0oJG8
45	Invariance of Euler Equation	https://youtu.be/br_hPR6Upn4
	Syllabus Completed	https://www.youtube.com/c/SidheshwarBellale/live
	Basics for Perfection in Mathematics	
1	Differentiation	https://www.youtube.com/playlist?list=PLzatFovyqhyQAUdrevP8MWguA1GTLt-t
2	Application of Derivatives	https://www.youtube.com/playlist?list=PL7TANb4Sj71rJFH1jxKIidtp34P9sofT1N
3	Indefinite Integration	https://www.youtube.com/playlist?list=PL7TANb4Sj71rJEW9jCLJmiG0Q_tQUhbf
I	Basics of Mathematics	https://www.youtube.com/playlist?list=PL7TANb4Sj71qVY4Tb7oZZwanyzqb3ctJl
II	For All Lectures Visit	https://www.youtube.com/channel/UC25Hwz1jT_gwAJU4YEiO6Rg
III	LIVE LECTURES	https://www.youtube.com/channel/UC25Hwz1jT_gwAJU4YEiO6Rg/live
	For Updated Quality Video Link Register/ Visit	https://www.youtube.com/channel/UC25Hwz1jT_gwAJU4YEiO6Rg