

Dayanand Science College, Latur.

E-Content (Video Lectures)

Class: B. Sc. I Year (Sem-I)

Name of Paper: Differential Calculus

Sub: Mathematics

Paper No: I (MT101)

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

Curriculum

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

Director Mathematics Centre, DSC Latur

Sr. No.	Name of Units / Articles	Video Lecture Link
I	Unit-I	
	All Unit I	https://www.youtube.com/playlist?list=PL7TANb4Sj71rA-8sVw-YA_Y9CLQkGvMpg
1	Syllabus, Definition and Basic Concepts	https://youtu.be/CMGQHibr9Dk
2	Introduction about Differential	https://youtu.be/iGaLQxMti9w
3	Introduction to Derivatives	https://youtu.be/5avVZ-PYRDw
4	Derivability and Derivatives	https://youtu.be/LnZ2otiKiVE
5	Derivability and Derivatives	https://youtu.be/zTmbg-cV4JI
6	Derivability Implying Continuity	https://youtu.be/HzveyM2k0do
7	Derivability Implying Continuity	https://youtu.be/kaKwDxxVCwg
8	Examples on Derivability and Continuity	https://youtu.be/f_bQ0-zkBwk
9	Examples on Derivability and Continuity	https://youtu.be/Txr3LjH8_Gg
10	Geometrical Interpretation of Derivatives	https://youtu.be/N_a23WuXAqQ
11	Hyperbolic Functions	https://youtu.be/j59LA86JAuQ
12	Derivatives Hyperbolic Functions	https://youtu.be/gtSid4sBa7w
13	Derivatives Inverse Hyperbolic Functions	https://youtu.be/7IXELnUNu2Q
14	Examples on Derivatives of Hyperbolic Function	https://youtu.be/WDqr08oY7f8
15	Higher Order Derivatives	https://youtu.be/94Ni7cr23BQ
16	Examples on Higher Order Derivatives	https://youtu.be/a2FpyRrnu2E
17	Examples on Higher Order Derivatives	https://youtu.be/O0Z9v1AEqSs
18	nth Derivatives	https://youtu.be/EcUMiIaj9VQ
19	Calculation of nth Derivatives	https://youtu.be/mNYaPoxEfiQ
20	nth Derivatives of Rational function	https://youtu.be/PVrBhq98IVo
21	Examples nth Derivatives	https://youtu.be/vs-Qi2essg0
22	nth derivatives of the products	https://youtu.be/caHop-Mzdb4
23	Leibnitz Theorem on Derivatives	https://youtu.be/3SHn4r6JZKY
	UNIT II	
	All Unit II	https://www.youtube.com/playlist?list=PL7TANb4Sj71qqC6d5R746ZgUeCsN7BMAy
1	Maclaurin's Theorem	https://youtu.be/6k02qDB3Eu4
2	Examples on Maclaurin's Theorem	https://youtu.be/EmSi2VP-5IU

3	Taylor's Theorem	https://youtu.be/4STFlvuoigl
4	Examples on Taylor's Theorem	https://youtu.be/N5fQRWk9G3s
5	Equation of Tangent and Normal	https://youtu.be/ESB8vTfacww
6	Examples on Tangent and Normal	https://youtu.be/SB_2j4lzt9Q
7	Examples on Tangent and Normal	https://youtu.be/m5dFCFOpk0A
8	Angle of Intersection of Two Curve	https://youtu.be/IWOAQXeLOJM
9	Length of Tangent and Normal	https://youtu.be/8T_nl1tu08w
10	Examples Length of Tangent and Normal	https://youtu.be/LwhtRyJtu18
11	Pedal Equations	https://youtu.be/2X_DSBmROfM
12	Pedal Equations of an Ellipse and Astriod	https://youtu.be/O-JttZxAHU
	UNIT III and IV	
	All Unit III and IV	https://www.youtube.com/playlist?list=PL7TANb4Sj71oMzYeyaAHzRSmxhaApvTWR
1	Rolle's Theorem	https://youtu.be/xK_OS7oteYg
2	Examples on Rolle's Theorem	https://youtu.be/pMe1utimnl0
3	Examples on Rolle's Theorem	https://youtu.be/GoFyBTQ1QuE
4	Examples on Rolle's Theorem	https://youtu.be/a0vK0ZzUgco
5	Problems on Lagrange's MVT	https://youtu.be/73A8_Ye1hnhw
6	Meaning of Sign of Derivative	https://youtu.be/wj9xiC7crDA
7	Problems on Sign of Derivative	https://youtu.be/qcI2U1cNwBU
8	Graphs of Hyperbolic Functions	https://youtu.be/-LLSSEoDX1w
9	Cauchy's Mean Value Theorem	https://youtu.be/acJy0Xo4HkU
10	Ex. Cauchy's Mean Value Theorem	https://youtu.be/36B8o2IbMwo
11	Generalized Mean Value Theorem	https://youtu.be/DSyJoxAoch0
12	Partial Differentiations	https://youtu.be/Vq2st-DqO18
13	Functions of two variables	https://youtu.be/yIrty5680ls
14	Partial Differential	https://youtu.be/-CP3Q175XAI
15	Examples Partial Differential	https://youtu.be/ZKKrFNMZBOQ
16	Examples Partial Differential	https://youtu.be/dEINPocNSsE
17	Examples Partial Differential	https://youtu.be/AqhUkmGFlqM
18	Homogeneous Equations	https://youtu.be/ev86vV6kB7w
19	Euler's Homogeneous Function	https://youtu.be/TTTDejOykQw
20	Theorem on Total Differentials	https://youtu.be/MaTuE5df1DU
	Syllabus Completed	
	For perfection in Mathematics: Basics	
1	Differentiation and Integration	https://www.youtube.com/playlist?list=PL7TANb4Sj71rJEW9jCLJmiG0Q_t-QUhbf
	Differentiation	https://www.youtube.com/playlist?list=PLzatFovyqhyQAUdrevP8MWguA1GTL_t-t

	Application of Derivatives	https://www.youtube.com/playlist?list=P_L7TANb4Sj71rJFH1jxKIotp34P9sofT1N
2	Indefinite Integration	https://www.youtube.com/playlist?list=P_L7TANb4Sj71rJEW9jCLJmiG0Q_t-QUhbf
6	LIVE LECTURES	https://www.youtube.com/channel/UC25Hwz1jT_gwAJU4YEiO6Rg/live
	For Updates and Quality Video Links Register/ Visit	https://www.youtube.com/channel/UC25Hwz1jT_gwAJU4YEiO6Rg