

Dayanand Science College, Latur.

E-Content (Video Lectures)

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

Sub: Mathematics

Name of Paper: Real Analysis-I

Paper No: VI (MT206)

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

Curriculum

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

Director, Mathematics Research Centre, DSC Latur

Sr. No.	Name of Units / Articles	Video Lecture Link
	Unit-I	
I	Unit-I (ALL)	https://www.youtube.com/playlist?list=PL7TANb4Sj71omv0tRaWWRMxG1B1XgzjF7
1	Syllabus, Definition and Basic Concepts	https://youtu.be/-mBGjXR_aEg
2	Introduction of Real Analysis	https://youtu.be/yjBvP9303gY
3	Composition and Field Structure	https://youtu.be/XKKN55uNdgo
4	Field structure	https://youtu.be/jeARqLEJFok
5	Order Structure	https://youtu.be/8AD_JGHPdQo
6	Completeness Property	https://youtu.be/9-Q7AnU0CD0
7	Intervals: Open and Closed	https://youtu.be/goY6CpGeFaA
8	Bounded Unbounded Sets	https://youtu.be/8O8e88NiViY
9	Supremum and Infimum	https://youtu.be/gQuduTGD2IU
10	Examples on Supremum and Infimum	https://youtu.be/1flb9IwnoQo
11	Completeness in the Set of Real	https://youtu.be/8fcThn9h3i8
12	Archimedean Property of Real Numbers	https://youtu.be/IK5rSuhdj0Y
13	Archimedean Property and Dedekind's Property	https://youtu.be/-jfywJJNq4
14	Representation of a Number on Real Line	https://youtu.be/HVWCA2T37vk
15	Absolute Value of Real Number	https://youtu.be/oGV3H1fXUeA
16	Neighborhood of Point	https://youtu.be/EEIxbUKvhk
17	Open Set and its Examples	https://youtu.be/U4Flke0EBKc
18	Theorems on Open Set	https://youtu.be/nLwwUnSQY1k
19	Limit Point of a Set	https://youtu.be/yaku834A8ng
20	Bolzano Weierstrass Theorem	https://youtu.be/DdRTEPWChAo
21	Examples on Derived Sets	https://youtu.be/FPUCYiVPDSY
22	Closure of a Set and Closed Sets	https://youtu.be/oMrS8mwnFEQ
23	Some Important theorems on Closed Sets	https://youtu.be/rk1rMXBx3II
24	Some Important theorems on Closed Sets	https://youtu.be/jnQl5QymHXQ
25	Some Important theorems on Closed Sets	https://youtu.be/ICEPnetBaWw
26	Countable and Uncountable Sets	https://youtu.be/d5YO7GAgFSE
27	Theorem of Countable and Uncountable Sets	https://youtu.be/OGu9oj4DtX8
	UNIT II	
	All Unit II	https://www.youtube.com/watch?v=v7Ky_EF46Do&list=PL7TANb4Sj71rKySKrMbKfXylTz02FGH45
28	Sequences and Bounds of a Sequence	https://youtu.be/S6yWB6HMOFw
29	Convergence of Sequence	https://youtu.be/DDE7tpuE7UI
30	Theorems on Convergence of Sequence	https://youtu.be/cLhAZVzNISQ
31	Limit Point of a Sequence	https://youtu.be/S7qtY8Oap1Y

32	Existence of limit Points	https://youtu.be/GksvddN5X9c
33	Convergent Sequences	https://youtu.be/aXVTIHU0ca4
34	Examples on Convergent Sequences	https://youtu.be/2SZis6llLg0
35	Examples on Convergent Sequences	https://youtu.be/3riibUxAc0E
36	Cauchy's General Principle of Convergence	https://youtu.be/05liBr_q2Z4
37	Cauchy Sequence	https://youtu.be/yurcnWRM8rw
38	Algebra of Sequences	https://youtu.be/pLrJJpRYMy8
39	Theorems on Algebra of Sequences	https://youtu.be/dc5Fw-8HXh0
40	Some Important Theorem	https://youtu.be/nWKFu1dNIEg
41	Sandwich Theorem	https://youtu.be/KHv3AsCQJsg
42	Cauchy's First Theorem on Limit	https://youtu.be/y2N-rDIWFR8
43	Cesaro's Theorem on Limit	https://youtu.be/3PtAqm942iI
44	Cauchy's Second Theorem on Limit	https://youtu.be/pm-gCEuSMIs
45	Examples on Cauchy's Second Theorem on Limit	https://youtu.be/15qBA-VNRKU
46	Theorems on Limit of Sequences	https://youtu.be/7fzO2jKS7E4
47	Monotonic Sequences	https://youtu.be/CJV6kfBe1nc
48	Subsequences	https://youtu.be/l-Mf6mkCOPM
49	Examples on Monotone Sequences	https://youtu.be/v7Ky_EF46Do
	Unit No III and IV	
	Unit No III and IV (All)	https://www.youtube.com/watch?v=GumGIZF1e0I&list=PL7TANb4Sj71ruGByDv-lGt8rApaUy2MgE
50	Convergence of Series	https://youtu.be/GumGIZF1e0I
51	Theorems on Convergence of Series	https://youtu.be/Y9Cf_7kpFjo
52	Cauchy's Principle on Convergence	https://youtu.be/yz_eendzfXA
53	Some Preliminary Theorems	https://youtu.be/yDIaL1GCsOQ
54	Positive term series	https://youtu.be/l69Jk-M3Gi0
55	Comparisons Series- Test	https://youtu.be/WnRfGwhKDMc
56	Comparisons Test for Series	https://youtu.be/ceMoQBwpeE
57	Examples on Comparison Test	https://youtu.be/1xseP9y9sH0
58	Alternating Series	https://youtu.be/sbIFpX3GApQ
59	Absolute Convergence	https://youtu.be/Q6xd4_W0ugo
60	Fourier Series	https://youtu.be/aEUhPhoiUck
61	Cauchy's Root Test	https://youtu.be/qmYN468cDxc
62	D 'Alembert's Root Test	https://youtu.be/f2y2qOpTvkC
63	Examples on D 'Alembert's Root Test	https://youtu.be/aSQe0_soNNk
64	Raabe's Test	https://youtu.be/bIelfq_mnuc
65	Examples on Raabe's test	https://youtu.be/i6164W5C9MM
66	Logarithmic Test	https://youtu.be/JYh1YxFE-6A
67	Test for Series of Arbitrary Term	https://youtu.be/TIFPtvOvkL0
	Syllabus Completed	
	For perfection in Mathematics: Basics	
1	Sets , Relations and Functions	https://www.youtube.com/playlist?list=PL7TANb4Sj71pLT9rJJN1XIDpqv9Lythw2
2	Basics for Real Analysis	https://www.youtube.com/playlist?list=PL7TANb4Sj71okEsD3aX8ABnhxX5XfwXcU

3	Sequences and Series	https://www.youtube.com/playlist?list=P_LzatFovyqhwqWOFegSefz7xOuRomL7De
4	For All Lectures Visit	https://www.youtube.com/channel/UC25Hwz1jT_gwAJU4YEiO6Rg
6	LIVE LECTURES 10:00am-11am (Mon to Friday)	https://www.youtube.com/channel/UC25Hwz1jT_gwAJU4YEiO6Rg/live
	For Updates and Quality Video Links Register/ Visit	https://www.youtube.com/channel/UC25Hwz1jT_gwAJU4YEiO6Rg