

RK VIGYAN PG COLLEGE KALWAR JAIPUR, RAJ.
B.SC 4TH SEMESTER MATHEMATICS THEORY

S.N	PAPER (I, II,) NAME	UNIT	TOPIC	VIDEO LINK
1		UNIT-I	Properties of derivable function 01	https://youtu.be/xzvl-a7RmPU?si=3WLxv959Uh4MEtsA
2			Properties of derivable function 02	https://youtu.be/zGycpQrTYA8?si=UKG5FcRgw_UJwtWY
3			Darbox theorem	https://youtu.be/lhT2nyzBkDU?si=cFIK6jssUCflgW1c
4			Rolle theorem	https://youtu.be/On7S0wU1z4w?si=1bG-cH3T_ZbIYrZs
5			Limit, continuity and differentiability for function s of two variables	https://youtube.com/playlist?list=PL8D5taFfp6CyBdDBTf
6			Directional derivatives	https://youtube.com/playlist?list=PLIU86IV5HmhRNCTeHdaU
7			Total derivatives	https://youtu.be/9GKfvknvTQk?si=T5QtqkN_GT7RDAgg
8			Expression of total derivatives in terms of partial derivatives	https://youtu.be/pSoldEpyEwQ?si=-6vd9zzNkpYSCQI-
9		UNIT-II	Riemann integration (lower and upper Riemann integral,)	https://youtube.com/playlist?list=PLdM-WZokR4tb3z4PIGS2g_9YU2x8S66FX&si=hDyeQXI0HBZQ8F0T
10			Mean valu theorem of integral calculus	https://youtu.be/-sm7NT6UGcw?si=2MfoscDRxJgYVJIQ
11			Fundamental theorem of integral calculus	https://youtu.be/1N8nzRacprl?si=x_lmF1XP2ip68OMG
12			Function of bounded variations	https://youtube.com/playlist?list=PL8D5taFfp6CwN9BAeoBrvSv0hLdB
13		UNIT-III	Relation Between difference	https://youtu.be/oiV7l8xQ4sU?si=9XyMoj79JhNVZvUr

			and derivatives 01	
14			Relation Between difference and derivatives 02	https://youtu.be/mjosvEgLT9M?si=uaCSRBOe-U0ZOTFM
15			Differences of a polynomial	https://youtu.be/IO5kY3GBMD4?si=tAHJFGHdaz_AoXCz
16			Newton's formula for forward and backward 01	https://youtu.be/Aw6LvaPtESE?si=2UtYB_dVSCqzXyu
17			Newton's formula for forward and backward 02	https://youtu.be/w4-cSP07c5s?si=Fyq9kw14GENWj1J3
18			Divided differences	https://youtu.be/aUEhTGdrJXU?si=zO8D9F3vUEIGjtu-
19			Newton's divided differences	https://youtu.be/OVfTwFbevWE?si=ntr0mfrMtQof6Y7M
20			Lagrange interpolation formula	https://youtu.be/zdyUwzOm1zw?si=aChlNd2dkmT-hEae
21			Numerical difference	https://youtu.be/FVx3rpahvzk?si=QO7tl7ueGjNtMUzA
22			Derivatives from interpolation formula	https://youtu.be/1knyEFF-_Sc?si=qcKas9vcMLfUbKpS
23		UNIT-IV	Numerical integration	https://youtu.be/4dnFKmj1I?si=xDk4nooOB9CaY5Rm
24			Derivation of general quadratic formula	https://youtu.be/d4FFDDJ-IR0?si=iaXXiPiHPCYO-aTv
25			Trapezoidal,simpson one-third,simpson three- eight	https://youtube.com/playlist?list=PLeIE3weEKo4bHS8wxVASCR2GxN
26			Gauss quadratic formula	https://youtu.be/ORVxU8JA8Js?si=33q7t_DzvsQ59K-6
27			numerical solution of algebraic and transcendental equation bisection method	https://youtube.com/playlist?list=PL0d0PH4hIFOcoyFnkZsm-OfA1QyXwbJsf&si=VaQeM0y8S8iOTWV-
28			Seceant method	https://youtu.be/Eud16189QRA?si=zGYBdpAQ4xwTIVqJ
29			Regula falsi method	https://youtu.be/FliKUWUVrEI?si=0rsbc4VGloI_eiQF
30			Iteration method	https://youtu.be/yahnkyvVF20?si=Q-K1VH1wcKOjbxWT

31			Newton's rapson method	https://youtu.be/7eHuQXMCovA?si=uMJwvUtFSIMAstyd
32			First order euler method	https://youtu.be/HCeDvuAerAw?si=QH6ls_MiUQj1HddI
33			Modified euler method	https://youtu.be/HCeDvuAerAw?si=Ps-Lu6X_KY5FxR2G