

RK VIGYAN PG COLLEGE KALWAR JAIPUR, RAJ.
B.SC 1ST SEMESTER PHYSICS THEORY

S.N	PAPER (I, II,) NAME	UNIT	TOPIC	VIDEO LINK
1		UNIT-I	FRAME OF REFERENCE : INERTIAL FRAME AND NON INERTIAL FRAME	https://youtu.be/FVqbd1YyHw?si=SunhIHIT4acsL7eI
2			TRANSFORMATION EQUATION FOR A ROTATING FRAME	https://youtu.be/y9mgcOen3TM?si=eqNRJvqDfWGN9Vm3
3			GALILIEAN TRANSFORMATION	https://youtu.be/bQYgGc9xNIA?si=rk8BRhbicnv-6xb0
4			FRAME OF REFERENCE	https://youtu.be/wbWPEG_incY?si=FQ90_16QwIDHELhU
5			INVARIENCE OF NEWTON'S LOW UNDER GALILIEAN TRANSFORMATION	https://youtu.be/8riPqt6BO2A?si=pdg4MZhGSv83Vo5y
6			CORIOLIS FORCE	https://youtu.be/2mYv3l8AaDM?si=5M9nA-JUYh7tDlVY
7			PSEUDO OR FICTITIOUS FORCE	https://youtu.be/xYMt8qfCh3o?si=QXhnlBebaZBXSb9C
8			EFFECT OF CENTRIFUGAL FORCE	https://youtu.be/Nm3pB6uLLws?si=GCcpPYAnkUU_9WfX
9			TRANSFORMATION OF DISPLACEMENT VELOCITY AND ACCELERATION IN ROTATING FRAME OF REFERENCE	https://youtu.be/o75Xy4xDoXs?si=fCF8i-oJ84BZ59M6
10			FOUCAULT PENDULUM	https://youtu.be/fe4FXlAdum0?si=upG5geTzg0Hdk6Kb
11			CONSERVATIVE AND NON CONSERVATIVE	https://youtu.be/k6xvBu4z8lY?si=aN3pe-Ge3ul-FyzC
12			rectilinear motion physics	https://youtu.be/1ANgWFa5WMI?si=NZKP58XP72XgfMIm
13			DISCUSSION OF POTENTIAL ENERGY CURVE AND MOTION OF A PARTICLE	https://youtu.be/7FC5yLFSofc?si=lfwEHF-SXPiWGVlt

14		UNIT-II	CENTRE OF MASS	https://youtu.be/q4_u1deTifs?si=m_x4_QfI9s3iPy1S
15			CENTRE OF MASS FRAME	https://youtu.be/xhiRB5B0Rfg?si=ByTkX8_mGI_zDWub
16			CENTRE OF MASS FRAME OF REFERENCE	https://youtu.be/F3ykJDk2enk?si=CVUhzDrF5mDh-dOA
17			collision in centre of mass frame	https://youtu.be/_dht1hjhEPk?si=_J7DqoBCYLP4rT7P
18			ELASTIC AND INELASTIC COLLISION	https://youtu.be/lmK-9y3dodo?si=Zl8m71bCyAlFqpBD
19			SLOWING DOWN OF NEUTRONS IN MODERATOR	https://youtu.be/tA_zZeHOOE?si=XTMOrmdA3OW4aivU
20			MOTION OF A SYSTEM WITH VARIABLE MASS	https://youtu.be/Dfoj7Ju5uBw?si=ORwQmKEs1cSUIPW
21			ANGULAR MOMENTUM CONCEPT	https://youtu.be/TgkMq9e24rc?si=p3lg3yflnxMbmNpc
22			CONSERVATION THEOREM OF ANGULAR MOMENTUM OF A PARTICLE	https://youtu.be/bGH2PijaL5I?si=UwdS-1M0-MIUDplp
23			CHARGE PARTICLE SCATTERING BY A NUCLEUS	https://youtu.be/_LFes9M-RDY?si=P5ewkiq6pCdIby0b
24			RIGID BODY	https://youtu.be/zLEIyarkA5M?si=lrLDIRfSvOCVD0QB
25			Equation of motion of a rotating body	https://youtu.be/jKHjilCqb9w?si=ubGPLze9qKu7FESQ
26			INERTIAL COEFFICIENT	https://youtu.be/OecCs6r3Wcl?si=mFUtt-isYWuXO-eg
27			KINETIC ENERGY OF ROTATION	https://youtu.be/h5p5YSj1c3g?si=gB-YR902pkY1luUH
28			ROTATIONAL MOTION	https://youtu.be/75HAvH-Sbos?si=B-lap7ngrF39o5OG
29			PROCESSIONAL MOTION WORK AND ENERGY	https://youtu.be/cS6GM8v5Dvw?si=PznmreQhF06VvB2M
30		UNIT-III	CENTRAL FORCE MOTION	https://www.youtube.com/live/BebZVFKoPfA?si=kpBaSLZIJUM7ydT5
31			MOTION UNDER CENTRAL FORCE	https://youtu.be/HhWkkSFtqPc?si=S7H1NEHfyEyteW4D

32			EQUATION OF ORBIT UNDER INVERSE SQUARE LAW FORCE (DERIVATION AND DISCUSSION)	https://youtu.be/dcUXbM6U8DM?si=85_RQR7BO9SF9Qiy
33			INERTIAL AND GRAVITATIONAL MASS	https://youtu.be/5xy52Ochx8k?si=iHee5O3DIH_ISW8S
34			KEPLER LAWS	https://youtu.be/KRrP0eRSOE8?si=licT6DWSt3trjYud
35			CASE OF ELLIPTICAL AND CIRCULAR ORBIT	https://youtu.be/ZC0lgBMuBdE?si=y58uw8RoQWzxJTOF
36			RUTHERFORD SCATTERING	https://youtu.be/ruYggQqIUqA?si=e6FE7cFnAxqHAkeA
37			DAMPED HARMONIC OSCILLATOR	https://youtu.be/sCHOqlr6nnw?si=7ZjJnlGijGiMB6iX
38			OSCILLATION IN A POTENTIAL WELL	https://youtu.be/zncRSOQSi3E?si=84LWmG_xDq9VSkxy
39			DAMPED OSCILLATION	https://youtu.be/XYPhMbdd_34?si=0iECFJMbw2vTq5jn
40			POWER DISSIPATION	https://youtu.be/9NDoRMpT_8o?si=81O0NhmYmlyQVgWU
41			ANHARMONIC OSCILLATION AND SIMPLE PENDULUM	https://youtu.be/JJWYuD3FRgs?si=rpklmD59d6HMbmCE
42		UNIT-IV	DRIVEN HARMONIC OSCILLATOR WITH DAMPING	https://youtu.be/YJOt60QtbWA?si=avA3JSfRIK7ntXcy
43			FREQUENCY RESPONSE	https://youtu.be/Eb544u_I6_4?si=bVEWsWFJxWelhWna
44			SERIES AND PARALLEL LCR	https://youtu.be/DsvuYh2KWFf?si=bRmxIQH8j7UoRL-R
45			ELECTROMECHANICAL AND GALVANOMETER	https://youtu.be/8PNKrDMPYKs?si=142ThAgwLQ0GeP0a
46			COUPLED OSCILLATION	https://youtu.be/_G5GbgJQwb0?si=qz84OO721Gi77gSA
47			EQUATION OF COUPLED SIMPLE HARMONIC	https://youtu.be/ln1huDYgklg?si=dLpprdVEZDoA-gWm
48			NORMAL MODES MOTION AND MIXED MODE	https://youtu.be/hFaFZT8zua4?si=ctz64xNjgna0-ACf

49			DYNAMICS NUMBER OF A OSCILLATION	https://youtu.be/JHu1KNZwSts?si=qLR1vm2NULnleX8B
50			COUPLED OSCILLATION	https://www.youtube.com/live/bYNK47DVAxk?si=p8KGWccbPRQMM8km
51			TWO COUPLED OSCILLATION	https://youtu.be/_G5GbgJQwb0?si=0YvLgx_M4sBHn72K