

Smt Sindhutai Jadhao Arts and Science Mahavidyalaya, Mehkar

B.Sc. I SEMESTAR I

PHYSICS

Topic	Link for Material
Unit I	
Kepler's laws of planetary motion	https://www.youtube.com/watch?v=CN_Sin_DzT4
Newton's law of gravitation	https://www.youtube.com/watch?v=yZeYTnXgL3s
acceleration due gravity	https://www.youtube.com/watch?v=p_YZ_duIO64
variation with altitude and depth	https://www.youtube.com/watch?v=I9df7q0n_Uo
Gravitational field	https://www.youtube.com/watch?v=7YeNunAJOVg
Gravitational Potential	https://www.youtube.com/watch?v=EL5QRN_by4k
Gauss's theorem	https://www.youtube.com/watch?v=dYDB83poUaI
gravitational potential and intensity due to uniform solid sphere at a point inside and outside the sphere.	https://www.youtube.com/watch?v=ViEiq4W1cGM
UNIT-II	
Motion of a Rigid body	https://www.youtube.com/watch?v=E5W3kyVc1_0
rotational motion.moment of inertia	https://www.youtube.com/watch?v=gLqkn2_iGY
Principle of Perpendicular	https://www.youtube.com/watch?v=o-ePS8moYGc
Parallel axes	https://www.youtube.com/watch?v=nmhhyBU1bc
Radius of Gyration	https://www.youtube.com/watch?v=SZYMJJ3rFC4
M.I of regular shaped bodies like ring	https://www.youtube.com/watch?v=6aUr0ukEWn4
M.I of regular shaped bodies hollow sphere	https://www.youtube.com/watch?v=fwyAuhuGSWQ
M.I of regular shaped bodies solid sphere	https://www.youtube.com/watch?v=fdrEVdVq0ZI
M.I of regular shaped bodies cylinder	https://www.youtube.com/watch?v=JaFQwM1QiVc
M.I of regular shaped bodies bar	https://www.youtube.com/watch?v=YfRin6cDYog
Linear momentum	https://www.youtube.com/watch?v=e9gIylcn1nM
angular momentum	https://www.youtube.com/watch?v=FvMaNF8tjw4
Conservation of angular momentum	https://www.youtube.com/watch?v=1hnVXOOgeRU
Conservation of Linear momentum	https://www.youtube.com/watch?v=3X5ELUJu0UU&t=1s
UNIT-III	
Linear S.H.M,	https://www.youtube.com/watch?v=GqpVrVh3RhQ
Angular S.H.M	https://www.youtube.com/watch?v=SP4AkbF8W6s
Displacement, Velocity and acceleration	https://www.youtube.com/watch?v=RrcbwW26nEU
Kinetic and Potential energy	https://www.youtube.com/watch?v=g7u6pIfUVy4
Simple pendulum	https://www.youtube.com/watch?v=IBzsl3rbzZ0
compound pendulum	https://www.youtube.com/watch?v=TOA23nMot94
Kater's Reversible pendulum	https://www.youtube.com/watch?v=TxbDyv17Jfs
Spring and mass system	https://www.youtube.com/watch?v=1endnvnI_68
Vibration of a magnet	https://www.youtube.com/watch?v=jGo_Hn5qFtA
bifilar oscillations	https://www.youtube.com/watch?v=Tp85RKZWqhG
Damped and forced harmonic oscillations,	https://www.youtube.com/watch?v=Tp85RKZWqhG
Resonance	https://www.youtube.com/watch?v=ST0QLbytnBQ
UNIT-IV	
Superposition of two SHM of same frequency along the same line	https://www.youtube.com/watch?v=CS41hdyI8Lg
Interference	https://www.youtube.com/watch?v=CAe3lkYNKt8
Superposition of two mutually perpendicular SHM of same Frequency	https://www.youtube.com/watch?v=wLGpVaTbM7A
Standing waves	https://www.youtube.com/watch?v=7FBAMoX10Jk
velocity of longitudinal waves (Newton's formula)	https://www.youtube.com/watch?v=QXxVBoK-fh8

velocity of waves by Kundt's tube	https://www.youtube.com/watch?v=7yohQu88Oxw
velocity of transverse waves in stretched string	https://www.youtube.com/watch?v=fCs48agNL7o
harmonics and overtones	https://www.youtube.com/watch?v=FyrhYZvN9W4
Production and detection of ultrasonic waves and its applications	https://www.youtube.com/watch?v=59OzOOpMcH0
UNIT-V	
Introduction of Elasticity	https://www.youtube.com/watch?v=qX9LNBHBYM8
Hooke's Law of Elasticity	https://www.youtube.com/watch?v=gRivwetKlmI
Three Elastic constants Relation between, U, s, k and h.	https://www.youtube.com/watch?v=06-smzm38
Bending of beam and Bending moment	https://www.youtube.com/watch?v=AvCkrU3KaZw
Cantilever, Depression of centrally loaded beam	https://www.youtube.com/watch?v=7IeJgDSQkaw
twisting couple	https://www.youtube.com/watch?v=zvLi3_AaN4Q
torsional pendulum	https://www.youtube.com/watch?v=pAJ2CQ28Lag
Maxwell's needle	https://www.youtube.com/watch?v=hRTFd_8LXBk
UNIT-VI	
Kinematics of moving fluids	https://www.youtube.com/watch?v=jnDbVE17Pzg
Streamline and turbulent flow	https://www.youtube.com/watch?v=tN2gl16CEwA
viscous drag	https://www.youtube.com/watch?v=-O-er63g1BA
Coefficient of viscosity	https://www.youtube.com/watch?v=CIK0eIwhyxU
equation of continuity	https://www.youtube.com/watch?v=zYRZ3lDe5hM
Euler's equation	https://www.youtube.com/watch?v=ZJ7sm_q_SrI
Bernoulli's theorem	https://www.youtube.com/watch?v=vG9nfw5bAA
Poiseuille's equation	https://www.youtube.com/watch?v=LuldrvQ0Uhk
Reynold's number	https://www.youtube.com/watch?v=RZ3rLK4bIQ4
Terminal velocity	https://www.youtube.com/watch?v=yXqeagd9PTQ
Stokes' law	https://www.youtube.com/watch?v=2odVI4Vc5UE
Variation of viscosity with temperature	https://www.youtube.com/watch?v=GYhgioMWSxo
Surface tension	https://www.youtube.com/watch?v=9K09rSXhKaw
angle of contact and wetting	https://www.youtube.com/watch?v=m3cU_kVVnGM
Jaeger's method	https://www.youtube.com/watch?v=BzqoAFyyuOM