Padasalai's Telegram Groups!

(தலைப்பிற்கு கீழே உள்ள லிங்கை கிளிக் செய்து குழுவில் இணையவும்!)

- **Padasalai's NEWS - Group**
https://t.me/joinchat/NIfCqVRBNj9hhV4wu6_NqA

- **Padasalai's Channel - Group**
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- **Lesson Plan - Group**
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- 12th Standard - Group
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- 11th Standard - Group
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- 10th Standard - Group
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- 9th Standard - Group
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- 6th to 8th Standard - Group
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- 1st to 5th Standard - Group
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J.JEYA MATRIC HR SEC SCHOOL

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EXPECTED 11th physics important question

1. MEASUREMENT

1. what is random errors?
2. what is meant by absolute error?
3. what are the limitation dimentional analysis?
4. write the rules for determining significant figure?
5. define acceleration&radion?
6. How will you measure the diameter of the moon using parallex method?
7. what is dimensionless quantity?
8. what is meant by propagation of errors?
9. Define precision and accuracy?
10. what is measurement?
11. what is physical quantity?
12. what is significant figure?
13. what is dimensional formula?give eg?
14. what is one radian?
15. What is difference between Accuracy and precision?

2.KINEMATICS

1. what is kinematics?
2. what is meant byframe of reference?
3. What is the point mass?give example?
4. what is circular motion?give example
8. State law of conservation of total linear momentum?

5. what is scalar and vector?give example
6. Define scalar or Dot product of two vectors?
7. Define vector or cross product of two vectors?
8. state right hand thump rule in vector product?
9. Define angular velocity?
10. What are the difference between distance and displacement?
11. what is momentum(or)linear momentum?give its unit?
12. what is uniform motion?
13. What is free fall of a body?
14. what is meant by projectile?Give its unit
15. what is uniform circular motion?

3.LAWS OF MOTION

1. Newton's first law of motion?
2. Newton's second law of motion?
3. Newton's third law of motion?
4. what is inertia of motion?give its unit
5. Define one newton?
6. what is free body diagram?
7. state Lami's theorem?

9.What is impulsive force?Give its unit?

10.What is meant by static friction?

11.Define angle of friction?

12.Define angle of Repose?

13.What is rolling friction?

14.What is centripetal force?

15.What is meant by pseudo force?

16.what is meant by banking of tracks?

17.what are inertial frames?

18.what is centrifugal force?

19.why it is not possible to push a car from inside?

4.WORK,ENERGY AND POWER

1.what is kinetic energy?

2.state work-kinetic energy theorem?

3.what is elastic potential energy?

4.what is conservative force?

5.State law of conservation of energy?

6.Define power?Give its unit?

7.Define one watt.?

8.what is meant by collision?Give its example

9.compare between Elastic and inelastic collisions?

10.what is potential energy?

5.MOTION OF SYSTEM OF PARTICLES AND RIGID BODIES

1.What is rigid body?

2.Define centre of mass?

3.what is a point mass?

4.define angular momentum?

5.Distinquish between stable and unstable equilibrium?

6.Define a couple?

7.what is centre of gravity?

8.Give some example for couple?

9.what is moment of inertia?

10.what is radius of gyration?Give its unit

11.State parallel axis theorem?

12.state perpendicular axis theorem?

13.state law of conservation of angular momentum?

14.Distinguish between sliding and slipping?

6.GRAVITATION

1.state kepler's 1st ,2nd,3rd,law

2.state Newton's universal law of gravitation?

3.state superposition principle for gravitation field?

4.Define gravitational constant.what its value?

5.Define gravitational potential energy?Give its unit

6.what is acceleration due to gravity?

7.what is meant by escape speed of the earth?

8.what is meant by the orbital speed of the satellite around the earth?

9.what are geo-stationary satellites?

10.what are polar satellites?

11.why there is no lunar and solar eclipse every month?

12.why do we have seasons on earth?

13.why do poles stars appear stationary?Name our pole star?

14.Define weight?

15.How will you prove that Earth itself is spinning?

PROPERTIES OF MATTER

1.What is matter?

2.what is deforming force?

3.what is elasticity?Give example

4.what is stress and strain?

5.what is meant by elastic limit?

6.State Hooke's law?

7.Define modulus of elasticity?name its type

8.what is compressibility?

9.Define poisson's Ratio?

10.what are the application of elasticity?

11.state pascal's law?

12.what is buoyancy?

13.state Archemedes principle?

14.state law of floatation?

15.Define viscosity?

16.what is streamline flow of the liquid?

17.what is turbulent flow of the liquid?

18.whar is Reynold's number?write it's a formula

19.what is terminal velocity?

20.state stokes law?

21.what is meant by cohesive and adhesive force?

22.what is angle of contact?

23.what are the application of surface tension?

24.state Bernoulli's theorem?

25.Distinguish between streamline and turbulent flow?

8.HEAT AND THERMODYNAMICS

1.State Boyle's law?

2.state Charle's law?

3.Define avogadro's number.Give its unit?

4.Define Heat and specific Heat capacity?unit

5.what is thermal expansion?

6.what is triple point?

7.what is meant by Calorimeter?

8.what is conduction?

9.state Newton's law of cooling?

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10.what is Block body?

11.State Stefan Boltzmann law?

12.State Wien's displacement law?

13.what is thermodynamics?

14.state zeroth law of thermodynamics?

15.what is internal energy?

16.state first law of thermodynamics?

17.what is quasi-static process?

18.what is p-v diagram?why it is used?

19.what is isothermal process?

20.what is adiabatic process?

21.what is isochoric and isobaric process?

22.what is reversible process?Give the example?

23.what is heat engine?name their parts

24.what is hot reservoir or source?

Define

~iency of

      heat

~ne?

26.state Kelvin-planck statement?

27.what is carnot engine?

28.what is carrnot cycle?

29.what is carrnot theorem?

30.what is meant by entropy?

9.Kinetic Theory of Gases

1.State Postulates of kinetic theory of gases?

2.Define root mean square speed?

3.why the moon has no admosphere?

4.why the earth's admosphere has no hydrogen?

5.What is degrees of freedom?

6.what is mean free path?

7.state law of equipartition of energy?

8.what is Brownian motion?

9.what are the factors affecting the Brownian motion?

10.state law of equipartition of energy?

10.OSCILLATIONS

1.What is periodic motion?give the example

2.what is simple harmonic motion?

3.what is angular frequency?Give its unit?

4.what is phase?Give its unit?

5.what is EPOCH?give its unit

6.compare the Simple and angular harmonic motion?

7.what is damped oscillations?ex

8.what is maintained motion?ex

9.What is Resonance?ex

10.soliders are not allowed to marchon a bridge.why?

11.WAVES

1.What is wave?give the example

2.characterictics of wave motion?

3Define frequency of a wave?

4.Define time period of a wave?

What is meant by SONAR ?

6.WHAT IS BEATS?

7.what is DOPPLER shift?

8.what is DOPPLER effect?

9.what is organ type?explai two types?

10.what is meant by end correction resonance column apparatus?

11.application of DOPPLER effect?

12.difference between longidutional and transverse waves?

5 MARKS
MEASUREMENTS
1.Explain various types of errors?

2.propagation of errors?

3.assuming that frequency of a vibrating string may depant upon 1)applied force2)length 3)mass per unit length prove that $Y\alpha$ 1/l $\sqrt{f}/m$ using dimensional analysType equation here.is?

4.covert 76 cm of mercury into n/m2 using the method dimensional?

5.obtain the expression for the time period Tof a simple pendulum the time period T depends upon 1)mass of the bob 2)length of the pendulum3)oscillation due to gravity g at the place where the place pendulum is suspented (constant k=2π)

2.KINEMATICS
1.triangle law of vector addition?

2.comparision of The properties of scalar and vector product ?

3.obtain the following expression in the eveny of angular projection of a projectile with the horizontal a)path of projectile b)maximum height c)time of flight d)horizontal range.

4.derive an expression for
 centripetal acceleration in the uniform circular motion?

3.LAWS OF MOTION
1. explain the motions of block connected by a string in vertical direction ?

2.explain the motions of block connected by a string in horizontal direction

3.prove the law of conservation of linear momentum?

4.show that in an inclient plane the angle of friction is equal to the angle of REPOSE?

5.Obtain the condition for safe and unsafe (skid)turn of a car leveled circular road?

6.obtain express for safe speed of a car when it turns on a banking of tracks and discuss how it prevents from skidding?

4.WORK ENERGY POWER
1.Describe the work done by a variable force?

2.state and work-energy theorem?

3.obtain an expression for elastic potential energy of a spring stretched along horizontal direction?

4.Arrive at an expression for elastic collision in one dimension and discuss various cases?

5.MOTION OF SYSTEM OF PARTICLES AND RIGID BODIES

1.obtain the relation between torque and angular acceleration.

2.explain why a cyclist bends while negotiating a curve road?arrive at the expression for angle of bending for a given velocity.

3.Obtiain the expression for moment of inertia of a uniform ring.

4.State and prove parallel
 Axis theorem.

5.state and prove perpendicular
 Axis theorem.

6.find the work done by a torque.

EXTRA QUESTIONS

1.Discuss the law of transverse vibration in stretched strings?

2.explain in detail the working of a refrigerator?

3.explain the variation of g with altitude,latitude,deapth?

4.state Bernoulli's theorem?

5.Describe the total degree of freedom for mono atomic,diatomic molecule?

6.Meyer's relations for ideal gas?

7.Describe the construction working of venturimeter?

8.explain the poisuelile's formula for the volume of liquid through the pipe line and stream lined flow

9.the energy in simple harmonic motion?

10.expression for escape speed?

11.details the Maxwell Boltzmann distribution function?

12.discuss the simple pendulum?

13.Explain the newton's three laws?

14.explain the detail Geostationary and polar satellite?

15.discuss the Laplace's correction?

16.Discuss various modes of heat transfer?

17.Derive the time period of satellite orbiting the earth?

18.state Newton's law of cooling?

19.how will you determine the velocity of sound using resonsnce column apparatus?

20.closed organ pipe,open organ pipe?

Prepare well

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