Padasalai's Telegram Groups!

(தலைப்பிற்கு கீழே உள்ள லிங்கை கிளிக் செய்து குழுவில் இணையவும்!)

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BAS

TN- XI-PHYSICS

IMPORTANT SHORT ANSWERS

1.NATURE OF PHYSICAL AND MEASUREMENT

1.Define scientific method.

2.What is mean by science?

3.What is mean by physics?

4.Define physical quantities?

5.Define measurement.

6.Types of physical quantities?

7.What are the advantage of SI unit?

8.What is the radian and srredian?

9.What is theory of errors?

10.Define singnificant digits.

11.Define singnificant figures.

12.Define accuracy and precision and example?

13.Define unit.

14.What is measurement of length and mass?

15.Mention to the mesurement of time intervals.

16.How will you measure the diameter of the moon using parallax method?

17.What are the limitation of dimensional analysis?

2.KINEMATICS

1.What is kinematics?

2.What is frame of reference?

3.Define scalar.

4.Define vector.

5.what is mean by magnitude of a vector?

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6. Define scalar product of two vector.

7. Define vector product of two vector.

8. Define distance and displacement.

9. Define acceleration.

10. Explain the relative velocity in one and two dimenswsional

11. Explain the projectile motion.

12. Define time of light.

13. Define horizontal range.

14. Define angular displacement.

15. Define velocity.

16. Define momentum.

17. Define angular velocity and angular acceleration.

18. Explain the maximum height.

19. Define average speed.

20. What is mean by cartesion coordinate system.

21. How do you deduce that two vectors are perpendicular.

22. What is non uniform circular motion?

23. Write down the kinetic equation for angular motion.

24. Write dowm the expression for angle made by resultant acceleration and radius vector in the non-uniform motion

3.LAWS OF MOTION

1. Newton's first law.

2. Newton's second law.

3. Newton's third law.

4. Define inertia and it's types.

5. Define direction of the force.

6. Define free body diagram.

7. Explain for developing a free body diagram.

8. What is concurent forces.

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9.Define lamis's theorem.

10.Write the law of conservation of linear momentum.

11.Define impulse.

12.Define frictional force.

13.Define kinetic friction and static friction.

14.Define centripetal and centrifugal.

15.Define inertia of a body.

16.Define one newton.

17.Show that impulse is the change of momentum.

18.Using free body diagram,Show that it is easy to pull an object than the to push it.

19.What is the mening by the 'Pseudo force'.

20. State the emprical law of static and kinetic friction.

21.Under what condition will a car skid on a leveled

circular road.

4. WORK,ENERGY AND POWER

1.What is energy?

2.Why the work done is scalar product?

3.Work done is zero in the following cases.

4.Define energy.

5.Explain the law of consrvation of energy.

6.Write the types of mechanical energy.

7.What is kinetic energy?

8.What is potential energy?

9.Explain the work kinetic energy theorem.

10.Each type is associated with a particular force for example.

11.Define elastic potential.

12.Explain the conservative and non-conservative force

13.Define power and average power.

14.Define instataneous power.

15.Define watt.

16.Explain the electricity.

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17. Define collisions.

18. Classify the types of collision.

19. Define elastic collision and inelastic collision.

20. Define COR.

21. Define ratio of velocity.

22. Explain how the definition of work in physics is different from general perception.

23. Write the various types of potentional energy. explain the formula.

24. Define co-efficient of restituion.

25. explain the loos of kinetic energy in inelastic collision.

5.MOTION OF SYSTEM OF PARTICLES AND PARTICLES OF RIGID BODIES

1. Define Internal and external forces.

2. What is mean by rigid body.

3. Define center of mass.

4. Define point mass.

5. Define torque and it's unit.

6. Define angular momentum of a point mass.

7. Write the conservation of angular momentum.

8. Write the equilibrium of rigid bodies condition.

9. Define center of gravity.

10. Define couple.

11. Define the moment of inertia and it's unit.

12. Define radiation of gyration and it's unit.

13. State the parallel axis theorem.

14. State the perpendicular axis theorem.

15. Define the coservation of angular momentum.

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16. State the principle of moment.

17. What are the conditions in which force cannot produce torque.

18. Give any two examples of torque in day to day life.

19. How do you distinguish between stable and unstable equilibrium?

20. Mention two physical significance of moment of inertia.

21. What is the condition for pure rolling.

22. What is the diffference between sliding and sliping.

23. What are the rotational eqivalents for the physical quatities,(1) mass and (2) force?

6.GRAVITATION

1. State the kepler's three law.

2. State the universal gravitational law.

3. Define the gravitational field.

4. Explain the Super position principle.

5. Define potential energy and gravitational potential energy.

6. Define weight of the object or weightlessness.

7. Why there are lunar eclipse and solar eclipse every month?

8. Why do we have the seasons on earth?

9. Will the angular momentum of a planet be conserved? justify your answer.

10. Is the potential energy property of a single object justify.

11. Define weight.

12. What are the geostationary and polar satellite?

13. How will you prove that the earth itself is spinning?

7.PROPERTIES OF MATTER

1. Explain the equillibrium positions.

2. Define elasticity.

3. Define deforming force.

4. Dfine plasticity.

5. Define strees and strain and it's unit.

6. State the Hooke's law.

7. Write the types of elastic modulus.

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8.Define compressibility.

9.Define poisson's ratio.

10.Which one ismore elastic? rubber or steel?

11.Define pascal's law.

12.Define upthrust or buoyancy.

13.Explain the Archimedes principle.

14.Define law of floatation and examples.

15.Define viscosity.

16.Define tube of flow .

17.Define streamlined flow.

18.Define terminal velocity.

19.Define Stoke's law.

20.Write the particle application of Stoke's law.

21.Write the Poiseuille's equation conditions.

22.Define cohesive force and adhesive force.

23.Define sphere of influence.

24.Define surface energy and surface tension and it's unit.

25.Define capillary tube.

26.Write the particle application of capillarity.

27.State the bernoulli's theorem.

8.HEAT AND THERMODYNAMICS

1.Define temperature and it's unit.

2.Obtain an ideal gas law from Boyel's and Charle's law.

3.Define heat.

4.Write the Boltzman constant.

5.Define one mole.

6.Define the heat capacity and Specific heat capacity.

7.Define molar specific heat capacity.

8.Define thermal expansion.

9. Define linear,area and volume expansion.

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10.Define latent heat capacity.

11.Define triple point.

12.Define calorimetry.

13.Define thermal conductivity.

14.State the Newton's law of calling.

15.Sate the stefan Boltzmann law.

16.Define chemical equilibrium.

17.State the zeroth law of thermodynamics.

18.State the first law of thermodynamics.

19.State the second law of thermodynamics.

20.Explain the all types of process.

21.Define reservior.

22.Define kelvin-planck statement.

9.KINETIC THEORY OF GASES

1.Define Root mean square.

2.Define degree of freedom.

3.Define monoatomic molecule.

4.Define Mean free path.

5.Define Brownian motion.

6.Write the factors affecting Brownian motion.

7.Deduce Avogadro's law, Charle's law and Boyle's law based on the kinetic theory.

10.OSCILLATIONS

1.Explain the priodic and non-periodic motion.

2.Define oscillatory or vibratory and example.

3.Define simple harmonic.

4.Define displacement.

5.Define Dummy variable.

6.Write the types of oscillation.

7.Define resonance and example.

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8.Write a short notes on two springs connected in series and parallel.

11.WAVES

1.Explain the mechanical wave motion and its types.

2.Write the characteristics of wave motion.

3.Comparision of transverse and longitudinal wavves.

4.Define trough.

5.Define time period.

6.Explain the propagation of the sound waves.

7.Write the reflection and refraction of sound.

8.States the law of reflection.

9.Define specular reflection.

10.Define super position waves .

11.Write the principle of superposition can explain the following.

12.Define Intreference.

13.Explain the formation of beat.

14.Define nodes.

15.Define sonometer.

16.Define harmonics.

17.Write the law of length,tension and mass.

18.Define loudess of sound.

19.Define overtone.

20.Write the Doppler effect in sound waves.

21.Write the Doppler effect three cases.

22.Write the application of Doppler effect.

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TN-XI-STANDARD
PHYSICS IMPORTANT FIVEMARKS QUESTIONS
VOLUME-I

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VOLUME -II

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26. expression of mean free path P-177

27. The projection of uniform circular motion on a diameter of SHM P-191

28. Displacement,velocity,acceleration and its graphical representation-SHM P-193

29. Time period,frequency,phases,phase difference and epouch in SHM P-196

30. Comparision of simple harmonic motion and angular harmonic motion P-199

31. Horizontal and vertical oscillations of a spring P-200.201

32. Oscillation of a simple pendulum in SHM and laws of simple pendilum P-207

33. Energy in simple harmonic motion (potential and kinetic energy) P-211

34. Types of oscillations P-213

35. Velocity of transverse waves in a stretched string P-232

36. velocity of longitudinal waves on an elastic medium P-233

37. Factors affecting speed of sound in gases P-237

38. Application of reflection of sound waves P-241

39. Explain of Interference of waves P-249

40. Comparison between progressive and stationary waves P-256

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