

**11<sup>th</sup> Physics – Model Question Paper**

**PROFESSOR ANNOUSSAMY HIGHER SECONDARY SCHOOL**

**Difference Question:-**

- 1) Distinguish between transverse and longitudinal waves
- 2) Distinguish between intensity and loudness of sound
- 3) Difference between progressive wave and stationary wave
- 4) Difference between longitudinal and transverse wave
- 5) Difference between isothermal process and adiabatic process
- 6) Difference between reversible process and irreversible process
- 7) Difference between dia, para and ferromagnetic substance
- 8) Difference between fundamental units and derived units
- 9) Difference between speed and velocity
- 10) What are the difference between inertial mass and gravitational mass
- 11) Difference between linear and angular harmonic oscillator
- 12) Difference between distance and displacement
- 13) Difference between linear motion and rotational motion
- 14) Relation between surface tension and surface energy

**State:-**

- 1) Parallelogram law of vector
- 2) Triangle law of vector
- 3) State newton's law of motion
- 4) State work energy theorem
- 5) State law of conservation of energy
- 6) State lamis theorem
- 7) State parallel axes theorem
- 8) State perpendicular axis theorem
- 9) State the law of conservation of angular momentum
- 10) State the universal law of gravitation
- 11) State Hooke's law
- 12) State Pascal's law
- 13) State stoke's law
- 14) State Bernoulli's theorem
- 15) State the laws of simple pendulum
- 16) State the principle of superposition
- 17) What is Doppler Effect?
- 18) State Charle's law
- 19) State newton's law of cooling
- 20) State 1<sup>st</sup> law of thermo dynamics, Zero<sup>th</sup> law of thermodynamics
- 21) State Kirchhoff's law
- 22) State the law of reflection
- 23) State coulomb's law
- 24) State tangent law

25) State Kepler's law of planetary motion

26) State Stefan's law

**Why:-**

- 1) Why SI system is considered superior to other system?
- 2) Why is the gravitational force of attraction between the two bodies of ordinary masses not noticeable in everyday life?
- 3) The moon has no atmosphere. Why?
- 4) Why do the astronauts feel weightlessness inside the orbiting spacecraft?
- 5) Why aeroplanes and cars have streamline shape?
- 6) Why hot water is preferred to cold water for washing clothes?
- 7) Why blood pressure in humans is greater at the feet than at the brain?
- 8) Why two holes are made to empty a fi/tin?
- 9) A person standing near a speeding train has a danger of falling towards the train. Why?
- 10) Why a small bubble rises slowly through a liquid whereas the bigger bubble rises rapidly?
- 11) Why mercury does not wet glass?
- 12) Water rises and mercury falls in capillary tube. Why?
- 13) In solids both longitudinal and transverse waves are possible, but transverse waves are not produced in gases. Why?
- 14) Sound travels faster on rainy days. Why?
- 15) What is an echo? Why an echo cannot be heard in a small room?
- 16) Why open organ pipes are preferred for making flute?
- 17) On driving a scooter for a long time the air pressure in the tyre slightly increases. Why?
- 18) Why are ventilators provided in our house?
- 19) Why in the absorptive power of a perfectly black body unity?

**Uses and Application & Limitations:-**

- 1) What are the limitations of dimensional analysis?
- 2) What are the uses of dimensional analysis?
- 3) What are the conditions that should be satisfied for work to be done?
- 4) What are the different types of equilibrium?
- 5) Explain the physical significance of moment of inertia.
- 6) Give four examples of practical application of surface tension.
- 7) Define wave motion. Mention the properties of the medium in which a wave propagates
- 8) What are the important characteristics of wave motion?
- 9) What are the properties of stationary wave?
- 10) What are the properties of progressive wave?
- 11) What are the postulates of kinetic theory of gases?
- 12) What are the factors causing earth's magnetism?
- 13) What are the properties of magnetic lines of forces?

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