

NAT II Physical Science Physics

| Sr | Questions | Answers Choice |
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| 1 | A sun rise or sun set, the sun looks reddish because: | A. The sun is coldest at these times B. Of the effects of reflection and refraction C. The sun is hottest at these times D. Of the scattering of light |
| 2 | When the length of a microscope tube increases, its magnifying power | A. Decreases B. Increases C. May increases or decreases depending on the observer and the place of observation D. Does not change |
| 3 | According to the Hooke's law the force required to change the length of a wire by 'l' is proportional to | A. l^2 B. l C. 1 D. l^3 |
| 4 | The velocity of falling raindrops attains limited value because of | A. Up thrust of air B. Viscous force exerted by air C. Surface tension effect D. Air currents atmosphere |
| 5 | Electrons in the atom are held in the atom due to | A. Coulomb forces B. Nuclear forces C. Gravitational forces D. Van der Waal's forces |
| 6 | At constant volume temperature is increased. Then | A. Collision on walls will be less B. Number of collisions per unit time will increase C. Collisions will be in straight lines D. Collisions will not change |
| 7 | If the dot product of two non-zero vectors vanishes, the vectors will be | A. In the same direction B. Opposite to each other C. Perpendicular to each other D. Zero |
| 8 | A p-n junction has a thickness of the order of: | A. 1 cm B. 1 mm C. 10^{-6} cm D. 10^{-12} cm |
| 9 | A wire of radius r has resistance R, It is stretched to a wire of r/2 radius, then the resistance becomes | A. 2R B. 4R C. 16R D. Zero |
| 10 | The henry is the unit for | A. Resistance B. Magnetic flux C. Magnetic field D. Inductance |
| 11 | A body moving in circular motion with constant speed has | A. Constant velocity B. Constant acceleration C. Constant kinetic energy D. Constant displacement |
| 12 | A boy is dropped from a tower with zero velocity, reaches ground in 4s. The height of the tower is about | A. 80 m B. 20 m C. 160 m D. 40 m |
| 13 | What will be the ratio of the distance moved by a freely falling body from rest in 4th and 5th seconds of journey? | A. 4 : 5 B. 7 : 9 C. 16 : 25 D. 1 : 1 |
| 14 | Which of the following is the only vector quantity? | A. Temperature B. Energy C. Power D. Momentum |

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| 15 | The structure of solids is investigated by using | A. Cosmic Rays B. X-rays C. Infra red Radiation D. γ-rays |
| 16 | For obtaining appreciable extension, the wire should be | A. Short and thin B. Long and thin C. Short and thick D. Long and thick |
| 17 | A 220 V, 50 Hz A.C. source is connected to an inductance of 0.2 H and a resistance of 20 ohm in series. What is the current in the circuit? | A. 10 A B. 5 A C. 33.3 A D. 3.33 A |
| 18 | The percentage errors in the measurements of mass and speed are 2% and 3% respectively. How much will be the maximum error in the estimate of the kinetic energy obtained by measuring mass and speed | A. 11% B. 8% C. 5% D. 1% |
| 19 | A particle is moving in a uniform magnetic field, then | A. its momentum changes but total energy remains the same B. Both momentum and total energy remains the same C. Both changes D. Total energy change but momentum remains |
| 20 | How much water a pump of 2kW can raise in one minute to a height of 10 m, take $g = 10 \text{ m/s}^2$? | A. 1000 liters B. 1200 liters C. 100 liters D. 2000 liters |