

## NAT II Physical Science Physics

Sr	Questions	Answers Choice
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. $l^{sup>-2}$ B. $l^{sup>-1}$ C. $l$ D. $l^{sup>2}$
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. $10^{sup>-6}$ cm D. $10^{sup>-12}$ cm
9	A wire of radius $r$ has resistance $R$ . If 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

15	The structure of solids is investigated by using	A. Cosmic Rays B. X-rays C. Infrared Radiation D. <span style="color: rgb(34, 34, 34); font-family: arial, sans-serif; font-size: small;">γ-rays</span>
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