

NAT II Physical Science Physics

Sr	Questions	Answers Choice
1	In case of p-n junction diode, at high value of reverse bias, the current rises sharply. The value of reverse bias is known as:	A. Cut off voltage B. Zener voltage C. Inverse voltage D. Critical voltage
2	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
3	Which of the following is a scalar quantity?	A. Density B. Displacement C. Torque D. Weight
4	The magnetic moment of a circular coil carrying current is	A. Directly proportional to the length of the wire in the coil B. Inversely proportional to the length of the wire in the coil C. Directly proportional to the square of the length of the wire in the coil D. Inversely proportional to the square of the length of the wire in the coil
5	A 50-volt battery is connected across 10-ohm resistor. The current is 4.5 A. The internal resistance of the battery is	A. Zero B. 0.5 ohm C. 1.1 ohm D. 5.0 ohm
6	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
7	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
8	The incorrect statement regarding the lines of force of the magnetic field B is	A. Magnetic intensity is a measure of lines of force passing through unit area held normal to it B. Magnetic lines of force form a close curve C. Inside a magnet, its magnetic lines of force move from north pole of a magnet towards its south pole D. Due to a magnet magnetic lines of force never cut each other
9	A pendulum clock set to give correct time in Karachi is taken to Quetta. It would give correct time if	A. The mass of the pendulum is increased B. The mass of the pendulum is decreased C. The length of the pendulum is increased D. The length of the pendulum is decreased
10	When sound waves travel from air to water which of these remains constant?	A. Velocity B. Frequency C. Wavelength D. All the above
11	A 2 kg body and a 3 kg body have equal momentum. If the kinetic energy of 3 kg body is 10 J, the KE of 2 kg body will be	A. 6.66 J B. 15 J C. 22.5 J D. 45 J
12	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

13	What remains constant when the earth revolves around the sun?	<p>A. Angular momentum</p> <p>B. Linear momentum</p> <p>C. Angular kinetic energy</p> <p>D. Linear kinetic energy</p>
14	Which one of the following is a simple harmonic motion?	<p>A. Wave moving through a string fixed at both ends</p> <p>B. Earth spinning about its own axis</p> <p>C. Ball bouncing between two rigid vertical walls</p> <p>D. Particle moving in a circle with uniform speed</p>
15	Centre of mass is a point	<p>A. Which is geometric centre of a body</p> <p>B. From which distance of particles are same</p> <p>C. Where the whole mass of the body is supposed to be centered</p> <p>D. Which is the origin of reference frame</p>
16	The angle between rectangular components of a vector is	<p>A. 0°</p> <p>B. 60°</p> <p>C. 90°</p> <p>D. 120°</p>
17	A person standing near the track of a fast moving train has tendency to fall towards it because of	<p>A. Vibration due to motion of train</p> <p>B. Gravitation force of attraction between person and trains</p> <p>C. The high speed of train</p> <p>D. Some other effect</p>
18	How much water a pump of 2kW can raise in one minute to a height of 10 m, take $g = 10 \text{ m/s}^2$?	<p>A. 1000 liters</p> <p>B. 1200 liters</p> <p>C. 100 liters</p> <p>D. 2000 liters</p>
19	A photocell with a constant p.d. of V volt across it illuminated by a point source from a distance of 25 cm. When the source is moved to a distance of 1m, the electrons emitted by the photocell	<p>A. Carry 1/4th their previous energy</p> <p>B. Are 1/16th as numerous as before</p> <p>C. Are 1/4th as numerous as before</p> <p>D. Carry 1/4th their previous momentum</p>
20	With the propagation of a longitudinal wave through a material medium, the quantities transmitted in the propagation direction are	<p>A. Energy, momentum and mass</p> <p>B. Energy</p> <p>C. Energy and mass</p> <p>D. Energy and linear momentum</p>