

## NAT I Engineering Physics

Sr	Questions	Answers Choice
1	The smooth or steady stream-line flow is know as	<p>A. Laminar flow</p> <p>B. Turbulent flow</p> <p>C. Both a and b</p> <p>D. None of the above</p>
2	If the amplitude of sound is doubled and the frequency reduced to one-fourth the intensity of sound at the same point will be	<p>A. Increasing by a factor of 2</p> <p>B. Decreasing by a factor of 2</p> <p>C. Decreasing by a factor of 4</p> <p>D. Unchanged</p>
3	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>
4	A (100 W, 200 V) bulb is connected to a 160 V power supply. The power consumption would be	<p>A. 64 W</p> <p>B. 80 W</p> <p>C. 100 W</p> <p>D. 125 W</p>
5	Band spectrum in produced by	<p>A. H</p> <p>B. He</p> <p>C. <math>H_{\alpha}</math></p> <p>D. Na</p>
6	Two sources of sound are said to be coherent if	<p>A. They produce sounds of equal intensity</p> <p>B. They produce sounds of equal frequency</p> <p>C. They produce sound waves vibrating with the same phase</p> <p>D. They produce sound waves with zero or constant phase difference all instant of time</p>
7	Who explained the origin of the Fraunhofer lines?	<p>A. Fraunhofer</p> <p>B. Kirchhoff</p> <p>C. Fresnel</p> <p>D. Snell</p>
8	A motorist travels A to B at a speed at 40 km/h and returns at speed of 60 km/h. His average speed will be:	<p>A. 40 km/h</p> <p>B. 48 km/h</p> <p>C. 50 km/h</p> <p>D. 60 km/h</p>
9	If the period of oscillation of mass (M) suspended from a spring is 2s, then the period of mass 4M will be	<p>A. 1 s</p> <p>B. 2 s</p> <p>C. 3 s</p> <p>D. 4 s</p>
10	The velocity of a particle at an instant is 10 m/s and after 5 s the velocity of the particle is 20 m/s. The velocity 3s before in m/s is:	<p>A. 8</p> <p>B. 4</p> <p>C. 6</p> <p>D. 7</p>
11	Mechanical waves on the surface of a liquid are	<p>A. Transverse</p> <p>B. Longitudinal</p> <p>C. Torsional</p> <p>D. Both transverse and longitudinal</p>
12	The frequency of the incident light falling on a photosensitive metal plate is doubled the kinetic energy of the emitted photoelectrons is	<p>A. Double the earlier value</p> <p>B. Unchanged</p> <p>C. More than doubled</p> <p>D. Less than doubled</p>
13	If the dot product of two non-zero vectors vanishes the vectors will be	<p>A. In the same direction</p> <p>B. Opposite to each other</p> <p>C. Perpendicular to each other</p> <p>D. Zero</p>
14	If a diamagnetic substance is brought near north or south pole of a bar magnet it is	<p>A. Attracted by the poles</p> <p>B. Repelled by the poles</p> <p>C. Repelled by north pole and attracted by the south pole</p> <p>D. Attracted by north pole and repelled by the south pole</p>

		D. Attracted by the north pole and repelled by the south pole
15	Which of the following is not thermo dynamical function?	A. Enthalpy B. Work done C. Gibb's energy D. Internal energy
16	A train of 150 m length is going towards north direction at a speed of $10 \text{ ms}^{-1}$ A parrot flies at a speed of $5 \text{ ms}^{-1}$ towards south direction parallel to the railway track, The time taken by the parrot to cross the train is equal to	A. 12 s B. 8 s C. 15 s D. 10 s
17	Which of the modulus of elasticity is involved in compressing a rod to decrease its length?	A. Young's modulus B. Bulk modulus C. Modulus of rigidity D. None of the above
18	When boron is added as an impurity to silicon the resulting material is	A. n type conductor B. n type semiconductor C. p-type conductor D. p-type semiconductor
19	Huygen's wave theory of light cannot explain	A. Diffraction B. Interference C. Polarization D. Photoelectric effect
20	In a simple harmonic motion the kinetic energy (KE) and the potential energy (PE), are such that throughout the motion	A. KE remains constant B. PE remains constant C. KE/PE is constant D. KE + PE remains constant