

## NAT II Physical Science Physics

Sr	Questions	Answers Choice
1	If a diamagnetic substance is brought near north or south pole of a bar magnet it is	A. Attracted by the poles B. Repelled by the poles C. Repelled by north pole and attracted by the south pole D. Attracted by the north pole and repelled by the south pole
2	When we apply reverse bias to a junction diode, it	A. Lowers the potential barrier B. Raise the potential barrier C. Increase the majority carrier current D. Increase the minority carrier current
3	Energy is stored in the choke coil in the form of	A. Heat B. Magnetic energy C. Electric energy D. Electro-magnetic energy
4	A couple produces	A. Purely linear motion B. Purely rotational motion C. Linear and rotational motion D. No motion
5	Steel is preferred for making springs over copper. Why?	A. Steel is cheaper B. Young's modulus of steel is more than that of copper C. Young's modulus of copper is more than that of steel D. Steel is less likely to be oxidized
6	Huygen's wave theory of light cannot explain	A. Diffraction B. Interference C. Polarization D. Photoelectric effect
7	In a Millikan's oil drop experiment the charge on an oil drop is calculated to be $6.35 \times 10^{-19}$ C. The number of excess electrons on the drop is	A. 3.9 B. 4 C. 4.2 D. 6
8	Radio waves of constant amplitude can be generated with	A. Rectifier B. Filter C. FET D. oscillator
9	A fly is sitting on the objective of a telescope pointed towards the moon. What effect is expected on the photography of the moon taken through the telescope?	A. The entire of view blocked B. There is an image of the fly on the photography C. There is no effect at all D. There is a reduction in the intensity of the image
10	A body moves a distance of 10 m along a straight line under the action of a force of 5 Newton's. If the work done is 25 joules, the angle which the force takes with the direction of motion of the body is:	A. $0^\circ$ B. $30^\circ$ C. $60^\circ$ D. $90^\circ$
11	The modulus of rigidity of a liquid is	A. Zero B. 1 C. Infinity D. A value not one of those mentioned above
12	The henry is the unit for	A. Resistance B. Magnetic flux C. Magnetic field

13 Mechanical waves on the surfaces of a liquid are  
 A. Transverse  
 B. Longitudinal  
 C. Torsional  
 D. both transverse and longitudinal

14 At a certain instant a stationary transverse wave is found to have maximum kinetic energy. The appearance of string of that instant is:  
 A. Sinusoidal shape with amplitude A/3  
 B. Sinusoidal shape with amplitude A/2  
 C. Sinusoidal shape with amplitude A  
 D. Straight line

15 Blood has a density  
 A. Equal to water  
 B. Greater than water  
 C. Lesser than water  
 D. None of these

16 Two sources of sound are said to be coherent if  
 A. They produce sounds of equal intensity  
 B. They produce sounds of equal frequency  
 C. They produce sound waves vibrating with the same phase  
 D. They produce sound waves with zero or constant phase difference all instant of time

17 A wire is stretched to double of its length. The strain is  
 A. 2  
 B. 1  
 C. zero  
 D. 0.5

18 A motorist travels A to B at a speed of 40 km/h and returns at speed of 60 km/h. His average speed will be  
 A. 40 km/h  
 B. 48 km/h  
 C. 50 km/h  
 D. 60 km/h

19 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

20 Which of the following four statement is false?  
 A. A body can have zero velocity and still be accelerated  
 B. A body can have a constant velocity and still have a varying speed  
 C. A body can have a constant speed and still have a varying velocity  
 D. The direction of the velocity of a body can change when its acceleration is constant