NAT I Medical Physics

Sr	Questions	Answers Choice
1	With the propagation of a longitudinal wave through a material medium the quantities transmitted in the propagation direction are	A. Energy momentum and mass B. Energy C. Energy and mass D. Energy and linear momentum
2	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
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	If yellow light emitted by sodium lamp in Young's double slit experiment is replaced by monochromatic blue light of the same intensity	A. Fringe width will decrease B. Fringe width will increase C. The fringe width will remain unchanged D. Fringes will become less intense
5	Ball pen function on the principle of	A. Viscosity B. Boyle's law C. Gravitational force D. Surface tension
6	When we apply reverse bias to a junction diode it	A. Lowers the potential barrier B. Raises the potential barrier C. Increase the majority carrier current D. Decrease the majority carrier current
7	The dimensional formula of toque is:	A. [ML²T²] B. [MLT²] C. [ML⁻¹T⁻²] D. [ML⁻²T⁻²]
8	To make the frequency double of na oscillator we have to	A. Double the mass B. Half the mass C. Quadruple the mass D. Reduce the mass to one-fourth
9	A person standing near the track of a fast moving train has tendency to fall towards it because of	A. Vibration due to motion of train B. Gravitation force of attraction between person and trains C. The high speed of train D. Some other effect
10	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
11	Radio waves of constant amplitude can be generated with	A. Rectifier B. Filter C. FET

		C. FET D. Oscillator
12	Blood has a density	A. Equal to water B. Greater then water C. Lesser then water D. None of these
13	The volt/metre is the unit of:	A. Potential B. Work C. Force D. Electric field intensity
14	Which one of the following phenomena is not explained by Huygen's construction of wavefront?	A. Refraction B. Reflection C. Diffraction D. Origin of spectra
15	Mechanical waves on the surface of a liquid are	A. Transverse B. Longitudinal C. Torsional D. Both transverse and longitudinal
16	In an AC circuit a resistance of R ohm i connected in series with an inductance L if phase angle between voltage and current be 45^{o} the value of inductive reactance will be	A. R/4 B. R/2 C. R
17	For production of beats the two sources must have	A. Different frequencies and same amplitude B. Different frequencies C. Different frequencies same amplitude and same phase D. Different frequencies and same phase.
18	A monochromatic source of light is placed at a large distance d from a metal surface Photoelectrons are ejected at rate n,kinetic energy being E. If the source is brought nearer to distance d/2, the rate and kinetic energy per photoelectron become nearly	A. 2n and 2E B. 4n and 4e C. 4n and E D. N and 4E
19	There are discrete energy levels in atoms. It was first experimentally demonstrated by	A. Rutherford's experiment B. Frank Hertz experiment C. Marsden's experiment D. Sommerfield experiment
20	The structure of solids is investigated by using	A. Cosmic Rays B. X-rays C. Intra red Radiation D. y-rays