

NAT I Medical Physics

Sr	Questions	Answers Choice
1	The motion without consideration of its cause is studied in:	A. Kinematics B. Mechanics C. Statics D. Modern Physics
2	Which of the following is the only vector quantity	A. Temperature B. Energy C. Power D. Momentum
3	A person standing on a rotating platform has his hands lowered He suddenly outstretches his arms. The angular momentum	A. Becomes zero B. Increases C. Decreases D. Remains the same
4	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
5	A (100 W, 200 V) bulb is connected to a 160 V power supply. The power consumption would be	A. 64 W B. 80 W C. 100 W D. 125 W
6	Two forces of 10N and 15N are acting simultaneously on an object in the same direction. Their resultant is	A. Zero B. 5N C. 25N D. 150N
7	Huygen's wave theory of light cannot explain	A. Diffraction B. Interference C. Polarization D. Photoelectric effect
8	A moving charge will gain energy due to the application of	A. Electric field B. Magnetic C. Both of these D. None of these
9	If the metal bob is a simple pendulum is replaced by a wooden bob, then its time period will	A. Increase B. Decreases C. Remain the same D. First 'A' then 'B'
10	The mass defect for the nucleus of helium is 0.0303 a.m.u What is the binding energy per nucleon for helium in MeV?	A. 28 B. 7 C. 4 D. 1
11	Boyle's law is applicable in	A. Isochoric process B. Isothermal process C. Isobaric process D. Isotonic process
12	To explain his theory Bohr used	A. Conservation of linear momentum B. Conservation of angular momentum C. Conservation of quantum frequency D. Conservation of energy
13	If 2.2 kilowatt power is transmitted through a 10 ohm line at 22000 volt, the power loss in he form of heat will be	A. 0.1 watt B. 1 watt C. 10 watt D. 100 watt
14	The terminal velocity of a small size spherical body of radius R moving in a fluid varies as	A. R B. R ² C. 1/R D. (1/R) ²
15	Who explained the origin of the Fraunhofer lines?	A. Fraunhoffer B. Kirchhoff C. Fresnel D. Snell

16	A train of 150 m length is going towards north direction at a speed of 10 ms ⁻¹ A parrot flies at a speed of 5 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	Two electric bulbs of 200 W and 100 W have same voltage.lf R1 and R2 be their resistance respectively then	A. R ₁ = 2R ₂ R ₂ &hbsp= 2R ₁ C. &hspp= 2R ₁ C. &hspp= 44444465637207px,">&hspp= 44444465637207px,">&hspp= 444444465637207px,">&hspp= 444444465637207px,">&hspp= 444444465637207px,">&hspp= 444444465637207px,">&hspp= 444444465637207px,">&hspp= 48 ₁ &hspp= 48 ₂
18	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 Ω C. 1.1 Ω D. 5.0 Ω
19	Bernoulli's equation is based upon law of conservation	A. Mass B. Momentum C. Energy D. None of these
20	Surface tension of water is due to	A. Inter molecular attraction B. Intermolecular spaces C. Inter molecular repulsion D. None of above