NAT II Physical Science Physics

Sr	Questions	Answers Choice
1	According to classical theory the proposed circular path of an electron in Rutherford model of atom will be	A. Circular B. Straight line C. Parabolic D. Spiral
2	The sieman is the SI unit of	A. Resistance B. Specific Resistance C. Conductance D. Inductance
3	According to the Hooke's law the force required to change the length of a wire by 'l' is proportional to	A. l⁻² B. l⁻¹ C. l D. l²
4	A capacitor acts as an infinite resistance for	A. AC B. DC C. Both AC and DC D. Neither AC nor DC
5	In which of the following states does the incandescent substance give continuous spectrum?	A. Vapours in atomic state B. Vapours in molecular state C. Solid or fluid in bulk state D. Solid or fluid in plasma state
6	Two forces are acting together on an object. The magnitude of their resultant is minimum when the angle between the force is	A. 0° B. 60° C. 120° D. 180°
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	All of the following statements are correct except	A. The total focal length of astronomical telescope is the sum of the focal lengths of its two lenses B. The image formed by the astronomical telescope is always erect because the effect of the combination of the two lenses is divergent C. The magnification of an astronomical telescope can increases by decreasing the focal length of the eyepiece D. The magnifying power of the refracting type of astronomical telescope is the ratio of the focal length of the objective to that of the eye piece
9	If the amplitude of sound is doubled and the frequency reduced to one-fourth, the intensity of sound at the same point will be	A. Increasing by a factor of 2 B. Decreasing by a factor of 2 C. Decreasing by a factor of 4 D. Unchanged
10	How does the Young's modulus vary with the increase of temperature?	A. Decrease B. Increases C. Remains constant D. First increases and then decreases
11	What remains constant when the earth revolves around the sun?	A. Angular momentum B. Linear momentum

		C. Angular kinetic energy D. Linear kinetic energy
12	The product of the pressure and volume of an ideal gas is	A. A constant B. Approximately equal to the universal gas constant C. Directly proportional to its temperature D. Inversely proportional to its temperature
13	The motion without consideration of its cause is studied in	A. Kinematics B. Mechanics C. Statics D. Modern Physics
14	A moving charge will gain energy due to the application of	A. Electric field B. Magnetic field C. Both of these D. None of these
15	Quantity that remains unchanged in a transformer is	A. Voltage B. Current C. Frequency D. None of these
16	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
17	Blood has a density	A. Equal to water B. Greater then water C. Lesser then water D. None of these
18	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 becomes less intense
19	A body of mass 2 kg is thrown up vertically with K.E. of 490 joules. If the acceleration due to gravity is 9.8 m/s^2, the height at which the K.E, of the body becomes half its original value is given by:	A. 50 m B. 12.5 m C. 25 m D. 10 m
20	In a simple harmonic motion (SHM), which of the following does not hold?	A. To force on the particle is maximum at the ends B. The acceleration in minimum at the mean position C. The potential energy is maximum at the mean position D. The kinetic energy is maximum at the mean position