NAT II Physical Science Physics

Sr	Questions	Answers Choice
1	Copper and germanium are cooled to 70K from room temperature, then	A. Resistance of copper increases while that of germanium decreases B. Resistance of copper decreases while that of germanium increases C. Resistance of both decreases D. Resistance of both increases
2	According to Stoke's law, drag force depends on	A. Initial velocity B. Final velocity C. Terminal velocity D. Instantaneous velocity
3	In case of p-n junction diode, at high value of reverse bias, the current rises sharply. The value of reverse bias is known as:	A. Cut off voltage B. Zener voltage C. Inverse voltage D. Critical voltage
4	With the increase of temperature viscosity	A. Increase B. Decrease C. Remains same D. Doubles
5	Angular momentum is	A. Vector (axial) B. Vector (polar) C. Scalar D. None of these
6	Choose the correct statement	A. Both an ammeter and voltmeter should have small resistance B. Both an ammeter and a voltmeter should have large resistance C. An ammeter should have large resistance and a voltmeter should have small resistance D. An ammeter should have small resistance and a voltmeter should have large resistance
7	The contrast in the fringes in any interference pattern depends on	A. Fringe width B. Intensity ratio of the sources C. Distance between the slits D. Wavelength
8	Blood has a density	A. Equal to water B. Greater then water C. Lesser then water D. None of these
9	A conducting wire is drawn to double its length. Final resistivity of the material will be	A. Double of the original one B. Half of the original one C. One-fourth of the original one D. Same as original one
10	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
11	The dimensional formula for the modulus of elasticity is same as that for:	A. Stress B. Strain C. Velocity D. Surface tension
12	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
13	Who explained the origin of the Fraunhoffer lines?	A. Fraunhoffer B. Kirchhoff C. Fresnel

		D. Shell
14	If the dot product of two non-zero vectors vanishes, the vectors will be	A. In the same direction B. Opposite to each other C. Perpendicular to each other D. Zero
15	What will be the duration of the day and night (in hour) if the diameter of the earth is suddenly reduced to half its original value, the mass remaining constant?	A. 12 B. 6 C. 3 D. 2
16	The part of a transistor which is heavily doped to produce large number of majority carriers is	A. Emitter B. Base C. Collector D. Any of the above depending on nature of transistor
17	At 0°K which of the following properties of a gas will be zero?	A. Kinetic energy B. Potential energy C. Vibrational energy D. Density
18	If the metal bob is a simple pendulum is replaced by a wooden bob, then its time period will	A. Increas B. Decreases C. Remain the same D. First A then B
19	Which of the following is a scalar quantity?	A. Density B. Displacement C. Torque D. Weight
20	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 ot be oxidized