

## NAT II Physical Science Physics

	the central fringe, the wavelength of monochromatic light used would be	D. 6 x 10 <sup>-5</sup> cm
2	Two electric bulbs of 200 W and 100 W have same voltage. If $\rm R_1$ and $\rm R_2$ be their resistance respectively then	A. R <sub>1</sub> =2R <sub>2</sub> B. R <sub>2</sub> =2R <sub>1</sub> C. R <sub>2</sub> =4R <sub>1</sub> D. R <sub>1</sub> =4R <sub>2</sub>
3	The fundamental unit which has same power in the dimensional formula of surface tension and viscosity is:	A. Mass B. Length C. Time D. None
4	A photocell with a constant p.d. of V volt across it illuminated by a point source from a distance of 25 cm. When the source is moved to a distance of 1m, the electrons emitted by the photocell	A. Carry 1/4th their previous energy B. Are 1/16th as numerous as before C. Are 1/4th as numerous as before D. Carry 1/4th their previous momentum
5	The nuclear model of atom was proposed by	A. J.J Thomson B. E. Rutherford C. Neil Bohr D. Summerfield
6	The peak voltage in 220 volt A.C. supply is nearly	A. 220 volt B. 253 volt C. 311 volt D. 440 volt
7	An ideal choked (used along with fluorescent tube) would be	A. A pure resistor B. A pure capacitor C. A pure inductor D. A combination of an inductor and a capacitor
8	There are discrete energy levels in atoms. It was first experimentally demonstrated by	A. Rutherford's experiment     B. Franck Hertz experiment     C. Marsden's experiment     D. Somerfield experiment
9	A bullet is shot from a rifle. As a result the rifle recoils. The kinetic energy of rifle as compared to that of bullet is	A. Less B. Greater C. Equal D. Cannot be concluded
10	The initial velocity of a body moving along a straight line in 7 m/s. It has a uniform acceleration of 4 m/s <sup>2</sup> . The distance covered by the body in the 5th second of its motion is	A. 25 m B. 35 m C. 50 m D. 85 m
11	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
		A Cosmic Pays
12	The structure of solids is investigated by using	A. Cosmic Rays B. X-rays C. Intra red Radiation D. <span style="color: rgb(34, 34, 34); font-family: arial, sans-serif; font-size: small;">γ-rays</span>
12	The structure of solids is investigated by using  To get a resultant displacement of 10 m, two displacement vectors of magnitude 6 m and 8 m should be combined	B. X-rays C. Intra red Radiation D.

14	With this current, if it dissipates 22.5 W, the resistance of fuse wire will be	B. 10 ohm C. 1 ohm D. 0.10 ohm
15	What is the average energy of N molecules of monoatomic gas?	A. 1/2 NKT B. NKT C. 3/2 NKT D. 5/2 NKT
16	The dimensional formula for the modulus of elasticity is same as that for:	A. Stress B. Strain C. Velocity D. Surface tension
17	Which of the following is the only vector quantity?	A. Temperature B. Energy C. Power D. Momentum
18	A train of 150 m length is going towards north direction at a speed of 10 ms <sup>-1</sup> . A parrot flies at a speed of 5 ms <sup>-1</sup> 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
19	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
20	A converging lens is used to form an image on a screen. When the upper half of the lens is covered by an opaque screen	A. Half the image will disappear     B. No change either in size or in     intensity     C. Intensity of image will increase     D. Intensity of the image will decrease