NAT II Physical Science Physics

Sr	Questions	Answers Choice
1	The dimensional formula for the modulus of elasticity is same as that for:	A. Stress B. Strain C. Velocity D. Surface tension
2	A cable breaks if stretched by more than 2 mm. It is cut into two equal parts. How much either part can be stretched without breaking?	A. 0.25 m B. 0.5 m C. 1 mm D. 2 mm
3	An object is placed at a distance of f/2 from a convex lens. The image will be	A. At one of the foci, virtual and double its size B. At, 3f/2, real and inverted C. At 2f, virtual and erect D. At f, real and inverted
4	The smooth or steady stream-line flow is know as	A. Laminar flow B. Turbulent flow C. Both a and b D. None of the above
5	A fly is sitting on the objective of a telescope pointed towards the moon. What effect is expected on the photography of the moon taken through the telescope?	A. The entire of view blocked B. There is an image of the fly on the photography C. There is no effect at all D. There is a reduction in the intensity of the image
6	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
7	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
8	Bernoulli's equation is based upon law of conservation	A. Mass B. Momentum C. Energy D. None of these
9	When the length of a microscope tube increases, its magnifying power	A. Decreases B. Increases C. May increases or decreases depending on the observer and the place of observation D. Does not change
10	Ball pen function on the principle of	A. Viscosity B. Boyle's law C. Gravitational force D. Surface tension
11	Mechanical waves on the surfaces of a liquid are	A. Transverse B. Longitudinal C. Torsional D. both transverse and longitudinal
12	Light appears to travel in straight lines since	A. It is not absorbed by the atmosphere B. It is reflected by the atmosphere C. Its wavelength is very small D. Its velocity is very large
13	A capacitor acts as an infinite resistance for	A. AC B. DC C. Both AC and DC D. Neither AC nor DC
14	The average binding energy of a nucleus inside an atomic nucleus is about	A. 8 MeV B. 8 eV

	[illegible]	C. 8 Joules D. 8 ergs
15	If the earth were to rotate faster, than its present speed the weight of an object will	A. Increase at the equator but remain unchanged at the poles B. Decrease at the equator but remain unchanged at the poles C. Remain unchanged at the decrease but decrease at the poles D. Remain unchanged at the equator but increase at the poles
16	A motorist travels A to B at a speed at 40 km/h and returns at speed of 60 km/h. His average speed will be	A. 40 km/h B. 48 km/h C. 50 km/h D. 60 km/h
17	The dot product of two vectors is negative when	A. They are parallel vectors B. They are anti-parallel vectors C. They are perpendicular vectors D. None of the above is correct
18	The unit of electric current 'ampere' is the amount of current flowing through each of two parallel wires 1 m apart and of infinite length will give rise to a force between them equal to	A. 1 N/m B. 2 x 10⁻⁷N/m C. 1 x 10⁻²N/m D. 4 x 10²N/m
19	When the length of a microscope tube increase, its magnifying power	A. Decreases B. Increases C. Does not Change D. May increase or decrease depending on the observer and the place of observation
20	A particle is moving in a uniform magnetic filed, then	A. its momentum changes but total energy remains the same B. Both momentum and total energy remains the same C. Both changes D. Total energy change but momentum remains