

PPSC Physics Topic 2 Structural Properties of Matter

Sr	Questions	Answers Choice
1	The SI unit of modulus of elasticity is	A. $N\ m^2$ B. $N\ m^{-1}$ C. $N\ m$ D. $N\ m^{-3}$
2	The pressure change in a confined incompressible fluid is transmitted equally in all directions throughout the fluid and to the walls of the container. This is.	A. Archimedes principle B. Kirchhoff's law C. Pascal's law D. Ampere's law
3	The surface of a liquid is somewhat similar to a stretched membrane because.	A. There is an elastic stress in the surface B. Tension in the surface increases if the area is increased C. The surface has a natural tendency to contract D. Ripples can be produced on the surface
4	Gases have	A. Fixed shape B. Fixed volume C. Fixed shape and volume D. No fixed shape and volume
5	A fundamental equation in fluid dynamics that relates pressure to fluid speed and height is.	A. Equation of continuity B. Bernoulli's equation C. Stoke's equation D. Mass energy equation.
6	The magnus effect is equivalent to	A. Bernoulli's theorem B. Archimedes principle C. Pascal's law D. Blood pressure
7	High concentration of red blood cells increases the viscosity of blood from	A. 2 -3 times that of water B. 3-4 times that of water C. 3 - 5 times that of water D. 4 -5 times that of water
8	The ratio of stress to strain is called.	A. Bulk modulus B. Young's modulus C. Modulus of elasticity D. Shear modulus
9	The rate at which blood is delivered to the patient in a transfusion depends on	A. Height of the blood level in the suspended container B. Volume of the container C. Shape of the container D. Material of the container
10	A hydrometer floats to a particular level in sea water in fresh water it.	A. Floats lower B. Sinks completely C. Floats higher D. Floats at the same level
11	Viscosity in fluid refers to	A. The density of a fluid B. the compressibility of a fluid C. Tangential force exerted on solid surface by the flowing fluid D. Normal forces exerted on solid surface by the flowing fluid
12	A uniform vertical wire is stretched by hanging a mass from its lower end. Which of the following does not effect the strain in the wire.	A. The stress B. The unstretched length C. The load applied D. the Young's modulus of the metal
13	A breaker is full of water with an ice piece floating. The ice piece has a lead piece in it. When ice cube melts then.	A. Water overflows B. Level falls C. Level remains unchanged D. Density increases
14	The velocity at which laminar flow changes to turbulent flow is called.	A. Terminal velocity B. Escape velocity C. Critical velocity

15 The proportion of crystalline to amorphous regions in a polymer depends on its

A. Chemical composition
B. Molecular arrangement
C. Physical state
D. Chemical composition and molecular arrangement

16 The force applied on unit area of a body to produce any change in shape volume or length is known as.

A. Strain
B. Stress
C. Tensile strain
D. Tensile stress

17 If you float in water with just your nose out the average density of your body must be

A. Same as that of water
B. Greater than that of water
C. Less than that of water
D. Zero

18 A liquid surface tends to contract this phenomenon is due to

A. Viscosity
B. Diffusion
C. Density
D. surface tension

19 A structure that is intermediate between order and disorder is.

A. glassy solids
B. Polymeric solids
C. Amorphous solids
D. Crystalline solids

20 If a liquid does not wet a solid surface, the angle of contact is.

A. Less than 90°
B. Greater than 180°
C. 90°
D. Between 90° and 180°