PPSC Physics Chapter 2 Structural Properties of Matter

Sr	Questions	Answers Choice
1	A piece of weighed wood just floats in water when placed in alcohol will	A. Float lower B. Float higher C. Stay as before D. Sink
2	If each particle of the fluid passing through a point follows the same path then flow is said to be	A. Regular flow B. Irregualr flow C. Turbulent flow D. Streamline flow
3	A fluid is said to be ideal if it is	A. Non viscous B. Non viscous and incompressible C. Non viscous and with steady flow D. Non viscous incompressible and has steady flow
4	The word amorphous means	A. With regular structure B. Without structure C. May have regular structure D. Thermoplastics
5	Amorphous solids are also called.	A. Crystalline solids B. Glassy solids C. Polymeric solids D. Polymers
6	An instrument which can float in the liquid to be tested and by means of which the specific gravity of the liquid may be determined is.	A. Hydrometer B. Barometer C. Siphon D. Lactometer
7	Liquids with disordered structure frozen in are an example of	A. Amorphous solids B. Glassy solids C. Crystalline solids D. Polymeric molecules
8	Molecules of a liquid	A. Do not vibrate about their mean position B. Are rigidly held with each other C. Have weak attractive forces D. Have strong attractive forces
9	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
10	A structure that is intermediate between order and disorder is.	A. glassy solids B. Polymeric solids C. Amorphous solids D. Crystalline solids
11	The property of a material to return to it original shape and size on the removal of an external force is called.	A. Stress B. Strain C. Toughness D. Elasticity
12	The nib of fountain pan is split of convey ink down the nib by the phenomenon of.	A. Adhesion B. Cohesion C. Osmosis D. Capillary
13	Any alternations product in shape length of volume where a body is subjected to some external force is called	A. Deformation B. Polymerization C. Crystallization D. Elasticity
14	The maximum stress a solid material can sustain with out undergoing permanent deformation is called.	A. elastic limit B. Plastic C. elastic deformation D. Plastic deformation
15	Viscosity in fluid refers to	A. The density of a fluid B. the compressibility of a fluid C. Tangential force exerted on solid

	Viscosity in fluid refers to	surface by the flowing fluid D. Normal forces exerted on solid surace by the following fluid
16	Which type of solid have definite melting point.	A. Crystalline solids B. Amorphous solids C. Glassy solids D. Polycrystalline solids
17	In any fluid the effect of decrease in pressure with the increase in speed in a horizontal pipe is known as	A. Bernoulli's effect B. Venturi effect C. Torriculli's effect D. Shift effect
18	The product of velocity and cross sectional are for a liquid flowing through a pipe is a measure of the.	A. Rate of flow B. Volume of fluid C. Fluid pressure D. Fluid friction
19	Rate of flow of a liquid is expressed in	A. Litre m-3 B. Litre s-1 C. Litre m-1 D. Litre s
20	Artificial polymers are made by a chemicals reaction known as.	A. Crystallization B. Electroplating C. Polymerization D. Polarization
21	Density of blood a	A. Equal to water B. Greater than water C. Less than water D. zero
22	A cube with sides 2 cm long is made from a material of density 8 g cm -3 What is the density of the block is.	A. 0.2 g cm-3 B. 0.5 g cm-2 C. 2 g cm-3 D. 5 g cm-3
23	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
24	The SI unit of stress is	A. kg m s-2 B. kg m-1 s-2 C. N m-2 D. N m-1
25	a body floats in liquid contained in a beaker The whole system falls freely under gravity The outthrust on the body due to liquids is	A. Zero B. Equal to the weight of the body in air C. Equal to the weight of the liquid displaced D. Equal to the weight of the immersed portion of the body
26	Plasma exists in	A. Electric bulbs B. Tube light C. Energy savers D. Fluorescent tubes
27	Viscosity will be maximum when	A. Water is at 20 ^oC B. Honey is at 20 ^oC C. Water is at 100 ^oC D. Milk is at 100 ^oC
28	Reversible alternation of the form of dimensions of a solid body under stress and strain is called.	A. elastic limit B. Plastic limit C. elestic deformation D. Plastic deformation
29	The dimensions of viscosity are	A. [MLT-1] B. [MT-2] C. [ML-1T-1] D. [ML2T-1]
30	Surface tension of a liquid may be defined as	A. Heat energy per unit area B. P.E. per unit area C. surface energy per unit area D. K.E. per unit area
31	Bernoulli's equation is Applica table to points	A. In a steady flowing liquid B. In a streamline C. In a straight line perpendicular to steamline D. In any non viscous liquid

32	An alternation produced in shape length or volume when a body is subjected to some external force is.	A. Deformation B. Polymerization C. Crystallization D. Elasticity
33	The strength per unit volume of a solid is called.	A. shear stress B. Shear strain C. Bulk strength D. Bulk modulus
34	Bernouli's equation includes as a special case of.	A. Hook's law B. Torricelli's therorem C. Third law of motion D. Archimedes principle
35	The Pressure will be low where the speed of the fluid is	A. Zero B. High C. Low D. Constant
36	Which of the following is mechanical property of a material.	A. Strength B. Stiffness C. Ductility D. All of these
37	Which force pushes up a body in fluid	A. Thrust B. Lift C. buoyant D. Pressure
38	Highly conducting state of matter is	A. Conductors B. Plasma C. Semiconductors D. Insulators
39	Solids have	A. Fixed shape only B. Fixed volume only C. Fixed shape and volume D. No fixed shape and volume
40	Which of the following solids exhibits only short range order.	A. Amorphous solids B. Polymeric solids C. Crystalline solids D. All of the above
41	What is generated when air moves an air foil.	A. Thrust B. Lift C. Drag D. Turbulence
42	A small and a large rain drops are falling thgouth all.	A. Large drop falls faster B. Both move with same velocity C. Small drop falls faster D. Small drop does not fall
43	When the deforming force applied on a body produces change in shape, thenit is said t be	A. Tensile stress B. Compression stress C. Shear stress D. Shear modulus
44	A tin film of liquid is enclosed between two glass plates it is difficult to spates the plates on account of.	A. Surface tension B. Atmospheric pressure C. Viscosity D. Friction
45	When the deforming force applied on a body produces change in volume then it is said to be	A. Tensile stress B. Compression stress C. Shear stress D. Shear modulus
46	In which one of the following states molecules do net leavt their position.	A. Solid B. Liquid C. Gas D. Plasma
47	the ratio of applied stress to volumetric strain is called.	A. shear modulus B. Bulk modulus C. Young's modulus D. elastic limit
48	The air pressure at the bottom of an air foiling motion is	A. Greater than that on the top B. Equal to that on the top C. Grather than that on the top D. Zero
49	The terminal velocity in case of spherical droplet is directly proportional to.	A. Square of the radius of the droplet B. Radius of the droplet C. Cube of the radius of the droplet

		D. Half of the Radius of the droplet half
50	How much would be the volume of ice formed by freezing 1 litre of water.	A. 1.0 litre B. 1.09 litre C. 1.90 litre D. 2.0 litre
51	Drag force between two layers under consideration depends on	A. Distance between the layers B. Surface area of layers C. Relevant velocity between them D. All of the above
52	The ratio of stress to strain is called.	A. Bulk modulus B. Young's modulus C. Modulus of elasticity D. Shear modulus
53	The extension produced in a sample of material depends upon	A. Nature of the material B. Stretching force C. Cross range order D. All of the above
54	The dimensions of stress are	A. [MLT-1] B. [ML-1 T] C. [ML-1T-1] D. [ML-1T-2]
55	A uniform vertical wire is stretched by hanging a mass from its lower end Which of the following does ot effect the strain in the wire.	A. The stress B. The upstretched length C. The load applied D. the Young's modulus of the metal
56	At which temperature surface tension of liquid will be maximum	A. 0 ^oC B. 20 ^oC C. 30 ^oC D. 100 ^oC
57	When the deforming force applied on a body produces change in length then it is said to be	A. Tensile stress B. compression stress C. Shear stress D. Shear modulus
58	A wire stretches 8 mm under a load of 60 N A second wire of the same material with half the diameter and a quarter of the original length of the first wire, is stretched by the same load What is the extension of the wire.	A. 1 mm B. 4 mm C. 8 mm D. 16 mm
59	a cube with sides 2 cm long is made from a material of density 8 g cm-3 What is the mass of the code	A. 4 g B. 16 g C. 32 g D. 64 g
60	Any substance that can flow is a	A. Solid B. Gas only C. liquid only D. Fluid
61	The SI unit of viscosity is.	A. Kg m -1 s-2 B. kg m-1 s-1 C. kg ms=-1 D. kg m s-2
62	If the cross sectional area of the pipe decreases the speed of the fluid increase according to.	A. Venturi relation B. Bernoulli's equation C. Equation of continuity D. Torriculli's theroem
63	Which of the following has maximum viscosity.	A. Oxygen B. Mercury C. Water D. Glycerine
64	A liquid surface tend to contract this phenomenon is due to	A. Viscosity B. Diffusion C. Density D. surface tension
65	A bodybuilders uses a chest expander with five springs it takes a force of 20 N to Pallone spring out by 15 cm how much force will be needed to extend the expander by 15 cm.	A. 50 N B. 75 N C. 150 N D. 1000 N
66	The viscosity of an ideal fluid is	A. Infinity B. Unity C. Zero D. 0.5
		A. A compressible fluid

67	Blood is	B. an incompressible fluid C. Non viscous fluid D. Not a fluid
68	A spring obeying Hooke's law has an upstretched length 50 mm and a spring constant of 400 N m-1 What is the tension in the spriing when its overall length is 70 mm.	A. 8 N B. 28 N C. 160 N D. 400 N
69	Venturimeter is a device used to measure	A. Density of a fluid B. Speed of a fluid C. Pressure of a fluid D. Viscosity of a fluid
70	How does viscosity affect relative motion between the liquid layers.	A. Does not affect B. Accelerates C. May accelerate of retard D. Retards
71	The buoyancy depends upon the	A. Depth to which the body is immersed B. Shape of the body C. Mass of the body D. Mass of the liquid displaced
72	The change in the dimensions of a body produced by the action of the deformation force is known as.	A. Strain B. Stress C. Tensile strain D. Tensile stress
73	If a liquid does not wet a solid surface, the angle of contact is.	A. Less than 90^o B. Greeter than 180 ^o C. 90 ^o D. Between 90 ^o and 180^o
74	The fluid which is incompressible and non viscous is called.	A. Viscous fluid B. Nonideal fluid C. Ideal fluid D. Perfect fluid
75	The velocity at which laminar flow changes to turbulent flow is called.	A. Terminal velocity B. Escape velocity C. Critical velocity D. Uniform velocity
76	A tank 3 m long 1 m wide and 0.5 m deep is filled with oil which weight 12,000 N . The pressure on the base of the tank due to oil is.	A. 1,000 Pa B. 4,000 Pa C. 3,000 Pa D. 6,000 Pa
77	Permanent change in shape or size of a solid body without fracture resulting from the application of strained stress beyond the elastic limit is called.	A. Elastic limit B. Plastic limit C. elastic deformation D. Plastic deformation
78	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
79	When a tennis balls is hit by a racket inasmuch a way that it spins as well as moves forward the velocity of the air on one side of the ball	A. Increases B. Decreases C. Remain constant D. Become zero
80	The venturimeter is an instrument used for measuring the	A. Viscosity of a liquid B. Flow speed of a liquid C. Compressibility of a fluid D. Specific gravity of a liquid
81	The word fluid means	A. To rise B. To fall C. To flow D. To oppose
82	At high altitudes, the blood flows out of nose and ear because.	A. Blood pressure increase at high altitudes B. Percentage of oxygen in the air increase C. Atmospheric pressure decreases there D. Density of blood decreases of high altitudes

83	If a fluid does not wet a liquid surface, the angle of contact is.	A. 90^o B. less than 90 ^o C. * greater than 180 ^o D. between 90^o and 180 ^o
84	A force of 10 N acting on a certain spring produces an extension of 40 mm Two such spring are connected end to end and this double length spring is extended by 40 mm What is the strain energy.	A. 0.05 J B. 0.10 J C. 0.20 J D. 0.40 J
85	The rate of which blood is delivered to the patient in a transfusion depends on	A. Hight of the blood level in the suspended container B. Volume of the container C. Shape of the container D. Material of the container
86	Viscosity of fluids with rise in temperature.	A. Increases B. Decreases C. Remains constant D. Vanishes
87	Which of the substances is the lightest one.	A. Copper B. Mercury C. Aluminium D. Lead
88	A solid in which there is no regular arrangement of molecules.	A. Amorphous solids B. Glassy solids C. Crystalline solids D. Polymerization
89	For which position, will the maximum blood pressure in the body have the smallest value.	A. Standing up right B. Sitting relaed C. Lying horizontally D. Standing on one's head
90	The design of an airfoil uses	A. Archimedes principle B. Bernouli's principle C. Pascal law D. Hooke's law
91	Soap cleans the dirty clothes because.	A. Its chemical constituents are changed B. Itr increases the surface tension of its solution with water C. It increases the surface tension of its solution with water D. It is less dense than that of water
92	The force that moves a rocket or a plane forward is called.	A. Lift B. drag C. Thrust D. Turbulence
93	The magnus effect is equivalent to	A. Bernouli's theorem B. Archimedes principle C. Pascal's law D. Blood pressure
94	A rectangular block has length 6 cm, width 5 cm and height 10 cm Its mass is 150 g The density of the block is	A. 0.2 g cm-3 B. 0.5 g cm-3 C. 2 g cm-3 D. 5 g cm-3
95	A breaker is full of water with an ice piece floating The ice place has a lead piece in it When ice cube mells then.	A. Water overflows B. Level falls C. Level remains unchanged D. Density increases
96	Birds planes and boats are streamlined to reduce	A. Turbulence B. Thrust C. Drag D. Lift
97	The SI unit of strain is	A. N m-1 B. N m-2 C. N m D. It has no unit
98	The smooth and steady streamline flow is known as	A. Turbulent flow B. Laminar flow C. Regular flow D. Irregular flow
99	The dimensions of strain are.	A. [MLT-2] B. [ML-1T-2] C. [ML-2T-3] D. It is a dimensionless quantity

		D. It is a dimensionless quantity
100	Which of the following is more viscous	A. Air B. Honey C. Water D. Milk
101	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
102	If a body retains completely its altered shape and size, it is said to be	A. Perfecto elasticity B. Perfect plasticity C. Elasticity D. elastic limit
103	Crystalline solids are of.	A. Short range order B. Long range order C. Intermediate range D. Plastics
104	The air plane lift is based on	A. Archimedes principle B. Law of conservation of momentum C. Bernoulli's principle D. Law of conservation of energy
105	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 eqation.
106	Powder clings to the face due to	A. Compression B. Capillary action C. Cohesion D. Adhesion
107	The ratio of tensile stress to tensile strain is called.	A. Shear modulus B. Bulk modolus C. Young's modulus D. Elastic limit
108	The lowest stress at which strain increases in stress in called.	A. elastic limit B. Plastic limit C. Yield point D. Bulk strength
109	Which principle is in effect when a ship displaces ocean water.	A. Bernouli's B. Pascal's C. Hook's D. Archimedes
110	halls fall faster than rain drops due to their	A. Grater size B. Greater mass C. Greater area D. Structure
111	Which liquid can flow easily.	A. Traacle B. Pitch C. Ether D. All flow with same rate
112	The SI unit of modulus of elasticity us	A. N m-2 B. N m-1 C. N m D. N m -3
113	Blood pressure of a person	A. Increases with age B. Describe with age C. Have no change D. Stops with age
114	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
115	Fluid mechanics is the study of how fluid move and the other ting involved is	A. Energy B. Velocity C. Forces D. Position
116	Minor losses through values, fittings, bends etc are modeled as proportional to	A. Velocity head B. Static head C. total head D. Pressure drop
117	A boat loving at constant speed 'v' through still water experiences a total frictional drag F	A. 1/2 Fv B. Fv

117	what is the power developed by the boat.	C. 1/2 Fv2 D. Fv2
118	High concentration of red blood cells increases the viscosity of blood from	A. 2 -3 time's that of water B. 3-4 times that of water C. 3 - 5 times that of water D. 4 -5 times that of water
119	Gases have	A. Fixed shape B. Fixed volume C. Fixed shape and volume D. No fixed shape and volume
120	The pulsating outflow of blood from the heart by alternate systole and diastole is smoothed out by	A. The blocking action of the heart's valves B. The viscosity of the blood C. The effect of gravity D. the elasticity of the blood vessels
121	With increase in temperature the angle of contact of liquid.	A. Increases B. Decreases C. Becomes zero D. First increase then decreases
122	A solid object is	A. Not elastic below the elastic limit B. Not elastic above the elastic lime C. Elastic below the elastic limit D. Not elastic at all
123	The product of cross sectional area of the pipe and the fluid velocity at any point along the pipe is equal to.	A. Zero B. Flow rate C. A constant D. A varibale
124	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