

Properties of Bulk Matter – MCQs

1. The property of a material by which it returns to its original shape after removing the deforming force is:

- A) Plasticity
 - B) Elasticity
 - C) Viscosity
 - D) Ductility
-

2. Young's modulus is defined for:

- A) Bulk deformation
 - B) Longitudinal strain
 - C) Shearing strain
 - D) Volumetric strain
-

3. The SI unit of stress is:

- A) Pascal
 - B) Newton
 - C) Joule
 - D) m/s^2
-

4. The ratio of stress to strain is known as:

- A) Modulus of elasticity
 - B) Elastic limit
 - C) Yield point
 - D) Hooke's constant
-

5. A perfectly elastic body:

- A) Returns to original shape completely
 - B) Does not return at all
 - C) Has infinite Young's modulus
 - D) Is made of rubber
-

6. The stress-strain graph is a straight line in:

- A) Plastic region
- B) Elastic region
- C) Yield region
- D) Breaking point

7. The ability of a fluid to resist flow is called:

- A) Elasticity
- B) Surface tension
- C) Viscosity
- D) Capillarity

8. The SI unit of viscosity is:

- A) Poise
 - B) Pascal-second
 - C) Dyne/cm²
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9. Terminal velocity of a spherical object in a fluid depends on:

- A) Mass only
 - B) Radius only
 - C) Radius²
 - D) Radius² and viscosity
-

10. The upward force experienced by a body submerged in fluid is:

- A) Tension
 - B) Gravitational force
 - C) Buoyant force
 - D) Surface force
-

11. The angle of contact for water and glass is:

- A) 90°
 - B) 0°
 - C) Acute
 - D) Obtuse
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12. Surface tension is due to:

- A) Gravitational force
 - B) Cohesive force
 - C) Adhesive force
 - D) Frictional force
-

13. The rise of a liquid in a capillary tube is due to:

- A) Surface tension
 - B) Gravity
 - C) Adhesion only
 - D) Cohesion only
-

14. For a liquid in a capillary tube, the rise is inversely proportional to:

- A) Radius
 - B) Area
 - C) Volume
 - D) Height
-

15. The bulk modulus is the ratio of:

- A) Volume stress to volume strain
 - B) Shear stress to shear strain
 - C) Longitudinal stress to strain
 - D) Pressure to area
-

16. Which of the following quantities is dimensionless?

- A) Stress
 - B) Strain
 - C) Pressure
 - D) Viscosity
-

17. Atmospheric pressure is measured using a:

- A) Barometer
- B) Manometer

- C) Thermometer
 - D) Altimeter
-

18. With increase in temperature, viscosity of liquids:

- A) Increases
 - B) Decreases
 - C) Remains constant
 - D) First increases then decreases
-

19. A small drop of liquid assumes spherical shape due to:

- A) Gravity
 - B) Surface tension
 - C) Viscosity
 - D) Buoyant force
-

20. The elasticity of a wire is defined as:

- A) Stress \times Strain
 - B) Strain / Stress
 - C) Stress / Strain
 - D) None of the above
-

Answer Key

- 1. B
- 2. B
- 3. A
- 4. A
- 5. A
- 6. B
- 7. C
- 8. B
- 9. D
- 10. C
- 11. C
- 12. B

13. A

14. A

15. A

16. B

17. A

18. B

19. B

20. C

D) Newton-second/m²

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 **Answer Key**

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- 3. A
- 4. A
- 5. A
- 6. B
- 7. C
- 8. B
- 9. D
- 10. C
- 11. C
- 12. B
- 13. A
- 14. A
- 15. A
- 16. B
- 17. A
- 18. B
- 19. B
- 20. C