

Physics

Class: 10

Chapter-5: State of Matter and Pressure

Cognitive Question (Mark-1):

1. What is buoyancy? 2. What is atmospheric pressure? 3. What is stress? 4. What is pressure? 5. State Archimedes law. 6. What is density? 7. Write down Hooke's law. 8. Write down Pascal's law. 9. State the law of elasticity of Robert Hook. 10. What is called the apparent expansion of liquid? 11. Write down the fundamental principle of calorimetry.

Analytical Question (Marks-2):

1. Explain why utensils float on water.
2. Why ice is floating in water? Explain.
3. Why atmospheric pressure reduces with the increase of altitude? Explain.
4. Why does not the shape of a human body change in atmospheric pressure?
5. Which one is more difficult when you walk by bare foot in plane brick road and brick lost road? Explain.
6. Why does rotten egg float on water? Explain.
7. The density of matter depends on the temperature. Explain.
8. Why is it easier to swim in the sea than in the river?
9. At definite depth, the pressure depends on the nature of liquid. Explain it.
10. Why is the reason of variation of the pressure at a point in a specific liquid at a fixed depth?
11. What is the cause of floating and sinking of a solid body? Explain.
12. Why an embankment dam's lower part is kept wider than the upper part?
13. Why do we feel that an object's weight is lost when it is drowned in liquid?
14. What do you mean by Torricelli's vacuum?
15. Why do we not feel the atmospheric pressure? Explain it.
16. Why the atmospheric pressure changes with the changes of altitude?
17. Why is a heavy weight easy to lift in water? Explain.

Chapter 6: Effect of Heat on Substances

Cognitive Question (Mark-1):

1. What is real expansion? 2. What is regelation? 3. What is called melting? 4. What is called fixed point? 5. What is freezing point? 6. What is latent heat? 7. What is specific heat? 8. What is the unit of thermal capacity? 9. What is called the triple point of water? 10. What is called 1 Kelvin? 11. Define evaporation.

Analytical Question (Marks-2):

1. Though heat is required to convert one state into another state of matter but temperature does not change---Why?
2. Temperature of two objects are same but amount of heat may not be same. Explain.
3. How the amount of water evaporates in the air regulates vaporization? Explain.
4. Why evaporation produces cooling? Explain.
5. Why the velocity of sound in air depends on temperature--- explain.
6. Why the velocity of sound is more in sea water than pure water?
7. Why is a fan turned on to dry a wet floor? Explain.
8. What does coefficient of linear expansion of steel $11 \times 10^{-6} \text{K}^{-1}$ mean?
9. Explain the plasma state of matter.
10. Explain the effect of pressure on the melting point.
11. Pressure is a thermometric property of matter explain.
12. Why is air of fan felt cold in the sweating body? Explain.
13. If a big container and a small container have same height and to keep a same amount of water in the two container, then the evaporation of water will be occurred of which container faster and why?
14. Why thermal expansion occurs due to increase of temperature?
15. What is meant by the specific heat of silver is $230 \text{Jkg}^{-1}\text{K}^{-1}$?

Chapter :9 (Refraction of light)

Cognitive Question (Mark-1):

1. What is refractive index? 2. Write down the Snell's law. 3. What is critical angle? 4. What is total internal reflection?

5.What is optical fiber? 6.What is optical centre? 7. What is centre of curvature? 8.What is lens? 9.Define image.

Analytical Question (Marks-2):

- 1.Why the value of reflection angle is zero if the incident ray is fallen normally?
- 2.What do you mean by accommodation of eye?
- 3.How to use refraction of light in telecommunication? Explain.
- 4.In the evening , why the pitch covered road are seen like water? Explain.
- 5.Why do not we see in the dark room? Explain.
- 6.How to create perceptions of colored object by cones cell? Explain.
- 7.How do we see the objects placed in different distances standing at same place? Explain.
- 8.When will total internal reflection take place? Explain.
- 9.Explain the advantage of having two eyes.
- 10.A normal eye can see an object of any distance. Explain.
- 11.Explain the accommodation of eye.
- 12.Explain perceptions of colored object.
- 13.With a normal eye , why objects of all distance can be seen?
- 14.Why is the use of optical fiber easier for the transmitting signal at far places?
- 15.If in front of eye , flare is moved suddenly , then in eye a circle of fire will be seen. Explain.
- 16.Write down the use of optical fiber in case of medical science.
- 17.What are the conditions of total internal reflection?
- 18.Explain how we can perceive the color of coloured object.

Chapter :10(Static Electricity)

Cognitive Question (Mark-1):

- 1.What is called electric potential ?
- 2.What is electric lines of force?
- 3.What is called electric intensity?
4. What is called p-n junction?
- 5.What is electric energy?
- 6.Write Coulomb's law.
- 7.What is called electric induction?

Analytical Question (Marks-2):

- 1.Why is the electric current decrease , when internal resistance increase?
- 2.Explain the reason to create a neutral point between two same charges.
- 3.220V--60W is written in an electric bulb . Explain the meaning.
- 4.Within resistance and resistivity which term is dependent on the physical state?
- 5.Write down two differences between alpha and gamma ray.
- 6.In the charged objects electric field, potential will decrease as the distance between unit objects increase--explain.
- 7.There is no direct connection between the electric line and electric pillar. Explain.
- 8.What is meant by 1C charge?
- 9.Why earth voltage is zero? Explain.
- 10.Why the electric lines of force are both open and closed?
- 11.Explain electric field intensity in an electric field is 10NC^{-1} .
- 12.Explain why the neutral point of two unequal positive charges is nearer to smaller one.
- 13.If the distance between two point charge is halved what will be the change of coulomb force between them? Explain.
- 14.What is the character of induced and inducing charge? Explain.
- 15.What is meant by 10 Coulomb charge?
- 16.If a positively charged body is kept in contact with a negatively charged electroscope, then what will happen? Explain.
- 17.Why are not same intensity at all point of electric field? Explain it.
- 18.Electron affinity is the reason for generating static electricity. Explain.

N. B:— All Boards Creative Question of the above chapters will be completed.