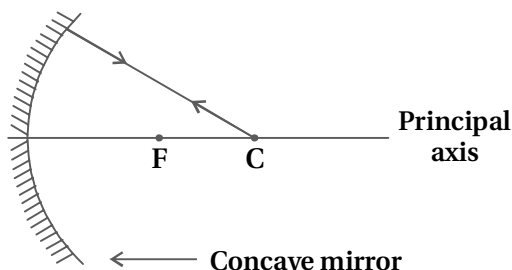


Section A

● Write the answer of the following questions. [Each carries 1 Mark] [24]

1. Which is the most ductile metal ?
 (A) Gold (B) Silver (C) (A) & (B) both (D) Platinum
2. Which metal exists as liquid at room temperature ?
 (A) Bromin (B) Gallium (C) Mercury (D) All of the above
3. among three allotropes of carbon is a good conductor of electricity.
 (A) Fullerenes (B) Graphite (C) Diamond (D) All of the given
4. True False : Graphite allotrope of carbon, is the naturally hardest substance so its boiling and melting points are very high.
5. A bond which is formed by sharing of electron pair between two atoms is called which bond ?
 (A) Covalent bond (B) Ionic bond (C) Wander wales bond (D) Hydrogen bond
6. Which of the following is the hardest substance ?
 (A) Graphite (B) Diamond (C) Buckminster Fullerine (D) All of the three
7. Compounds having equal molecular formula but having different structures are called which type of isomers ?
 (A) Light isomers (B) Geometrical isomers (C) Structural isomers (D) Vinyas isomers
8. The allotrope of carbon named possesses three dimensional structure.
9. What is a covalent bond ?
10. The whole body of the amoeba is in contact with environment, so
 (A) The process of taking food (B) The process of inhale-exhale of oxygen.
 (C) The process of disposal of excretory substances (D) All the above
11. Autotrophic organisms use inorganic substance like in food formation.
 (A) carbon dioxide-water (B) oxygen-water (C) minerals and water (D) nitrogen-water
12. The food is stored in animal body in the form of
 (A) glucose (B) glycogen (C) galactose (D) glycerol
13. All information from our environment is detected by
 (A) Epidermal cells (B) Cells of connective tissue
 (C) Receptors (D) All of the above
14. Auxin is formed in
15. True or False : The thinking tissue is located in the posterior part of the brain.
16. What is called in optics an object which has higher refractive index ?
 (A) Optically rarer (B) Optically denser (C) Optically density (D) Refractive index
17. The angle of reflection in the given figure is
 (A) 90°
 (B) 180°
 (C) 0°
 (D) 30°



18. Which of the following always forms virtual images ?
 (A) Concave mirror and Convex lens (B) Convex mirror and Concave lens
 (C) Convex mirror and Convex lens (D) Concave mirror and Concave lens
19. A doctor suggest a lens of + 2.5 D power for defect of eye, then this person have type of defect of eye.
20. True or False : In myopia one cannot see nearby object clearly.
21. Which phenomenon is responsible for producing Tyndall effect ?
 (A) Reflection (B) Refraction (C) Scattering (D) Dispersion
22. Which of the following colours is least scattered by fog, dust or smoke ?
 (A) Violet (B) Blue (C) Red (D) Yellow
23. The human eye has
 (A) Concave Mirror (B) Concave Lens (C) Convex Mirror (D) Convex Lens
24. Due to effect of HCl of gastric juice protects its wall.
 (A) Pepsin (B) dil HCl (C) Mucus (D) water

Section B

- Write the answer of any 9 questions from given questions. [Each carries 2 Marks] [18]
25. Metals are hard. Explain with example.
 26. What are metals and ores ?
 27. What is meant by oxidising agent ? Explain oxidation reaction of carbon compounds.
 28. What are amphoteric oxides ? Give two examples of amphoteric oxides.
 29. Explain the nature of the covalent bond using the bond formation in CH_3Cl .
 30. Give two points of Differences : Autotrophic Nutrition and Heterotrophic Nutrition.
 31. Where the complete digestion of food takes place and which components are obtained as products ? Give short explanation of digestion process.
 32. Give two points of Differences : Aerobic respiration and Anaerobic respiration.
 33. Give two points of Differences : Aquatic organisms and Terrestrial organisms.
 34. An object of height 1 cm is placed at a distance of 20 cm from a concave mirror, its real image of height 4 cm is form. Find position of image and focal length.
 35. Why does a ray of light splits into seven colours on passing through a glass prism ?
 36. A rays of light are entering from water into glass. The refractive index of glass with respect to water is 1.12. Find the absolute refractive index of water if absolute refractive index of glass is 1.5.
 37. A concave lens of focal length 15 cm forms an image 10 cm from the lens. How far is the object placed from the lens ? Draw the ray diagram.

Section C

- Write the answer of any 6 questions from given questions. [Each carries 3 Marks] [18]
38. Write a short note on power of accommodation.
 39. Write the difference between Myopia and Hypermetropia.
 40. Explain : Chlorophyll is needed for photosynthesis.
 41. Draw the diagram of nerve cell and explain the transport of information by it.
 42. Mention the common properties of ionic compounds.
 43. Explain : On the basis of combustion reaction of carbon compounds, how saturated and unsaturated

- 44. Describe substitution reaction of carbon compounds.
- 45. Draw a diagram of human brain and its functional and its main parts.
- 46. Explain refraction of light through a rectangular glass slab.

Section D

- Write the answer of any 5 questions from given questions. [Each carries 4 Marks] [20]
- 47. Describe various steps included in extraction of metals from its ores.
 - 48. Explain mechanism of reaction of cleaning of soap with the help of proper activity/experiment.
 - 49. Draw a diagram of schematic section of human heart and explain the working method / Mechanism.
 - 50. Explain entry of oxygen in blood in lungs.
 - 51. Give sign convention for reflection by spherical mirrors.
 - 52. Explain myopia (near-sightedness) of vision of eye and how can be prevented ? Explain.
 - 53. Describe chemical reactions of Ethanoic acid.
 - 54. Explain image formation by spherical mirror with the help of ray diagram.

