

I Choose the best answer.

$$12 \times 1 = 12$$

- The size of an air bubble rising up in the water
a) decreases b) increases
c) remains the same d) may increase or decrease
- Electroplating is an example for
a) heating effect b) chemical effect c) flowing effect d) magnetic effect
- When a beam of white light passes through a prism it gets
a) reflected b) only deviated c) deviated and dispersed
- has the same properties throughout the sample.
a) pure substance b) mixture c) colloid d) suspension
- Number of valence electrons in carbon is
a) 2 b) 4 c) 3 d) 5
- The hydrated salt of copper sulphate has colour.
a) red b) white c) blue
- Water vascular system is found in
a) hydra b) earthworm c) Star fish d) Ascaris
- The chemical reaction occurs during photosynthesis is
a) CO₂ is reduced and water is oxidized
b) water is reduced and CO₂ is oxidized c) both CO₂ and water are oxidized
d) both CO₂ and water are produced
- Which of the following is not a part of female reproductive system
a) ovary b) uterus c) testes d) fallopian tube
- The physician who discovered that scurvy can be cured by ingestion of citrus fruit in
a) James Lind b) Louis Pasteur c) Charles Darwin d) Isaac Newton
- Diphtheria affects the
a) Lungs b) throat c) blood d) liver
- Which key should be pressed to turn a slide show?
a) f1 b) tab c) f5 d) f2

II Answer any seven question. Q.no:22 is compulsory.

$$7 \times 2 = 14$$

13. What do you know about the pitch of screw gauge ?
 14. **Fill in the blanks :**
 - i) The SI unit of magnetic induction is
 - ii) An electric motor converts
 15. State Pascal's law.
 16. You have just won a medal made of 22 carat gold. have you just procured a pure substance or impure substance ?
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17. Identify the compounds as ionic covalent coordinate based on the given characteristics.
a) Soluble in non polar solvents b) Undergoes faster /instantaneous reaction
c) Non conductors of electricity d) Solid at room temperature
18. In which stage of mitosis the chromosomes align in an equatorial plate? How?
19. Differentiate phototropism from photonasty.
20. What is micturition?
21. Name the chronic diseases associated with respiratory system
22. The speed of light in water is $2.25 \times 10^8 \text{ mS}^{-1}$. if the speed light in vacuum is $3 \times 10^8 \text{ mS}^{-1}$. calculate the refractive index of water

III. Answer any seven question: q.no:32 is compulsory

7 X 4 = 28

23. Explain different types of motion (any 5).
24. a) Say whether it is true or false.
i) Ammeter is connected in parallel in any electric circuit.
ii) Current can produce magnetic field.
b) Match the following .
i) Length - Kelvin
ii) Mass - meter
iii) Time - kilogram
iii) Temperature - second
25. i) On what factors does the electrostatic force between two charges depend?
ii) Name any two appliances work under the principle of heating effect of current.
26. What are the limitation of Mendeleevs periodic table
27. Write a note on different types of bonds.
28. Write any five uses of salts.
29. Differentiate between tropic and nastic movement.
30. Explain the role of food control agencies in India any (four).
31. i) What is libre office impress ? ii) What is slide ?
32. Find the oxidation number of the element in the following compounds
a) C in CO_2 b) Mn in MnSO_4 c) N in HNO_3

IV. Answer all the questions.

3 X 7 = 21

33. a) Derive the equations of motion by graphical method. (OR)
b) i) State the advantages of AC over DC.
ii) Explain two types of transformers.
34. a) i) Write the differences between elements and compounds and give an example for each.
ii) Explain Tyndall and Brownian movement with suitable diagram. (OR)
b) i) Sulphuric acid is called king of chemicals. Why it is called so? Any (5)
ii) Define aqua regia.
35. a) i) Give an account on phylum annelida.
ii) Differentiate between flat worms and round worms. (OR)
b) Suggest the immunization schedule for a newborn baby till 12 months of age .why it is necessary to follow the schedule?