Class : 9

Register Number

COMMON HALF YEARLY EXAMINATION - 2024 - 25

SCIENCE

Time Allowed : 3.00 Hours]   [Max. Marks : 75

PART - I

I. Choose the correct answer.   12x1= 12

1. 1 metric ton is equal to -----------
   a) 100 quintals   b) 10 quintals   c) 1/10 quintals   d) 1/100 quintals

2. Clouds float in atmosphere because of their low
   a) density   b) pressure   c) velocity   d) mass

3. Transformer works on
   a) AC only   b) DC only   c) Both AC and DC   d) none

4. The speed of light is maximum in
   a) vacuum   b) glass   c) diamond   d) water

5. The correct electronic configuration of potassium is
   a) 2,8,9   b) 2,8,1   c) 2,8,8,1   d) 2,8,8,3

6. Elements in the modern periodic table are arranged in groups and periods
   a) 7, 18   b) 18, 7   c) 17, 8   d) 8, 17

7. ----------- compounds have high melting and boiling points.
   a) Covalent   b) Coordinate   c) Ionic   d) both b and c

8. The common name of Calcium Oxychloride is ------------
   a) Common Salt   b) Bleaching powder
   c) Plaster of paris   d) none

9. Aerenchyma is found in
   a) epiphytes   b) hydrophytes   c) halophytes   d) xerophytes

10. Transpiration takes place through ------------
    a) fruit   b) seed   c) flower   d) stomata

11. Food and Adulteration Act was enforced by Government of India in the year ------------
    a) 1964   b) 1954   c) 1950   d) 1963

12. The organ affected by jaundice is
    a) liver   b) lungs   c) kidney   d) brain

PART - II

II. Answer any SEVEN of the following questions. Question no 22 is compulsory.   7X2=14

13. Define least count.

14. Compare speed and velocity

15. State whether true or false. If false, correct the statement.
    a) Ammeter is connected in parallel in any electric circuit.
    b) Archimedes' principle can also be applied to gases.

16. A few drops of 'Dettol' when added to water the mixture turns turbid. Why?

17. State modern periodic law

18. Identify the following reactions as oxidation or reduction
    a. $Na \rightarrow Na^+ + e^-$ b. $Fe^{3+} + 2e^- \rightarrow Fe^+$
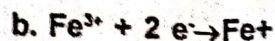
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19. Match the following.

PHYLUM	EXAMPLES
(A) Coelenterata	(i) Snail
(B) Platyhelminthes	(ii) Starfish
(C) Echinodermata	(iii) Tapeworm
(D) Mollusca	(iv) Hydra

20. Why your doctor advises you to drink plenty of water?

21. What is slide?

22. The speed of light in air is 3×10^8 ms^{-1} and in glass it is 2×10^8 ms^{-1}. What is the refractive index of glass?

PART - III

III. Answer any SEVEN of the following questions. Question no 32 is compulsory. 7X4=28

23. Explain different types of motion.

24. State the laws of flotation.

25. Differentiate step up and step-down transformer.

26. a) Define Tyndall effect

    b) Define Sublimation.

27. Discuss in brief about the properties of coordinate covalent compounds.

28. Write any four uses of bases

29. List out the differences between mitosis and meiosis.

30. What are the effects of consuming adulterated food?

31. a) Expand the following.

    i) HIV   ii) WHO

    b) Pick out the odd one

        i) AIDS, Retrovirus, Lymphocytes, BCG,

        ii) Bacterial disease, Rabies, Cholera, Common cold and Influenza

32. Calculate the number of neutrons, protons and electrons: (i) atomic number 3 and mass number 7 (ii) atomic number 92 and mass number 238.

PART - IV

IV. Answer all the questions.   **3X7=21**

33. a) Derive the equations of motion by graphical method. **(OR)**

    b) i) Differentiate mass and weight.

        ii) List the safety features while handling electricity.

34. a) i) Explain the postulates of Bohr's atomic model.

        ii) Draw the structure of Sulphur atom.

        iii) The valency of Argon is ---------   **(OR)**

    b) i) List down the differences between Ionic and Covalent compounds.

        ii) NaCl is insoluble in carbon tetrachloride but soluble in water. Give reason.

35. a) i) List five characteristic features of fishes

        ii) List the respiratory organs of amphibians. **(OR)**

    b) i) What is nastic movement?

        ii) Describe the alimentary canal of man

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