

Class : 10

Register
Number

COMMON QUARTERLY EXAMINATION - 2025-26

Time Allowed : 3.00 Hours]

SCIENCE

[Max. Marks : 75

PART - I

I. Note: (i) Answer all the questions

12x1=12

(ii) Choose the most appropriate answer from the given four alternatives and write the option code and the corresponding answer

1. In which of the following sport the turning effect of force used
a) swimming b) tennis c) cycling d) hockey
2. Where should an object be placed so that a real and inverted image of same size is obtained by a convex lens
a) f b) 2f c) infinity d) between f and 2f
3. If a substance is heated or cooled, the change in mass of that substance is
a) positive b) negative c) zero d) none of the above
4. Which of the following is a triatomic molecule?
a) Glucose b) Helium c) Carbon dioxide d) Hydrogen
5. The number of periods and groups in the periodic table are -----
a) 6, 16 b) 7, 17 c) 8, 18 d) 7, 18
6. Identify the non-aqueous solution
a) sodium chloride in water b) glucose in water
c) copper sulphate in water d) Sulphur in carbon di sulphide
7. Oxygen is produced at what point during photosynthesis?
a) when ATP is converted to ADP b) when CO₂ is fixed
c) When H₂O is splitted d) All of these
8. Which organ acts as both exocrine gland as well as endocrine gland
a) Pancreas b) Kidney c) Liver d) Lungs
9. Syngamy results in the formation of -----
a) Zoospores b) Conidia c) Zygote d) Chlamydo spores
10. Okazaki fragments are joined together by -----
a) Helicase b) DNA polymerase c) RNA primer d) DNA ligase
11. A wire of resistance 4 Ω is stretched to twice to its original length. The resistance of stretched wire would be -----
a) 2 Ω b) 4 Ω c) 8 Ω d) 16 Ω
12. a) Decrease in WBC 1. Anaemia
b) Decrease in platelets 2. Leukocytes
c) Increase in WBC 3. Leukopenia
d) Decrease in RBC 4. Thrombocytopenia
a) a - 3, b - 2, c - 4, d - 1 b) a - 4, b - 2, c - 1, d - 3
c) a - 3, b - 4, c - 2, d - 1 c) a - 2, b - 1, c - 3, d - 4

PART - II

II. Answer any seven questions. Question number 22 is compulsory.

7x2=14

13. Define inertia. Give its classifications
14. Why does the sky appear in blue colour?
15. Define atomicity
16. What is molar volume of a gas?
17. Define the term solution

18. What is respiratory quotient?

19. Write the dental formula of rabbit

20. Draw the given diagram and label the parts



21. Write the importance of fertilization.

22. Keeping the temperature as constant, a gas is compressed four times of its initial pressure. The volume of gas in the container is changing from 20 cc (V_1 cc) to V_2 cc. Find the final volume V_2

PART – III

III. Answer any seven questions. Question No. 32 is Compulsory

7×4=28

23. Describe rocket's propulsion

24. Explain the experiment of measuring the real and apparent expansion of a liquid with a neat diagram.

25. a) State any two applications of Avogadro's law

b) State two conditions for rusting of iron

26. Write notes on

a) Saturated solution b) Unsaturated solution

27. Differentiate Aerobic respiration and Anaerobic respiration

28. What is transpiration? Give the importance of transpiration.

29. a) Name the gaseous plant hormone. Describe its three different actions in plants

b) Which hormone is known as stress hormone? Why?

30. Explain the types of Chromosomes based on the position of Centromere

31. List out the parasitic adaptations in leech

32. a) Under same conditions of temperature and pressure if you collect 3 litre of O_2 , 5 litre of Cl_2 and 6 litre of H_2

i) Which has the highest number of molecules?

ii) Which has the lowest number of molecules?

b) A solution was prepared by dissolving 25 g of sugar in 100 g of water. Calculate the mass percentage of solute.

PART – IV

IV. Answer all the questions. Draw diagrams wherever necessary.

3×7=21

33. a) i) What is power of accommodation of eye?

ii) List any five properties of light (OR)

b) With the help of a circuit diagram derive the formula for the resultant resistance of three resistances connected i) in series ii) in parallel

34. a) i) Calculate the number of moles in 1) 27 g of Al 2) 1.51×10^{23} molecules of NH_4Cl

ii) Give the salient features of "Modern atomic theory" (OR)

b) i) Give an example each

i) Gas in liquid ii) Solid in liquid iii) Solid in solid iv) Gas in gas

ii) What happens when $MgSO_4 \cdot 7H_2O$ is heated? Write the appropriate equation

iii) Define solubility

35. a) i) What are structures involved in the protection of the brain?

ii) With a neat labelled diagram explain the structure of a neuron (OR)

b) How is the structure of DNA organized? What is the biological significance of DNA?