

FIRST REVISION EXAMINATION - 2025

CLASS:X

SCIENCE

Reg.No

Time : 3.00 Hours

Marks : 75

Instructions:

- ❖ Write clearly and legibly without mistakes and overwriting utilising the maximum time allotted for the exam
- ❖ Answers should be in your own style without changing the main core concept.
- ❖ Use only black or blue ink pen to write the exam.
- ❖ Draw clear diagrams wherever necessary.

PART - A

I Choose the correct answer:

12X1=12

1. Impulse is equal to
 - a) rate of change of momentum
 - b) rate of force and time
 - c) change of momentum
 - d) rate of change of mass
2. The value of universal gas constant
 - a) $3.81 \text{ Jmol}^{-1} \text{ K}^{-1}$
 - b) $8.03 \text{ Jmol}^{-1} \text{ K}^{-1}$
 - c) $1.38 \text{ Jmol}^{-1} \text{ K}^{-1}$
 - d) $8.31 \text{ Jmol}^{-1} \text{ K}^{-1}$
3. The frequency, which is audible to the human ear is _____
 - a) 50 kHz
 - b) 20 kHz
 - c) 15000 kHz
 - d) 10000 kHz
4. _____ isotope is used for the treatment of cancer.
 - a) Radio Iodine
 - b) Radio Cobalt
 - c) Radio Carbon
 - d) Radio Nickel
5. The gram molecular mass of oxygen molecule is
 - a) 16 g
 - b) 18 g
 - c) 32 g
 - d) 17 g
6. Chemical formula of rust is _____
 - a) $\text{FeO} \cdot x \text{H}_2\text{O}$
 - b) $\text{FeO}_4 \cdot x \text{H}_2\text{O}$
 - c) $\text{Fe}_2\text{O}_3 \cdot x \text{H}_2\text{O}$
 - d) FeO
7. 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
8. "Heart of heart" is called
 - a) SA node
 - b) AV node
 - c) Purkinje fibres
 - d) Bundle of His
9. The normal pH of human blood is _____
 - a) 7.4
 - b) 7
 - c) 7.2
 - d) 7.1
10. Okazaki fragments are joined together by _____
 - a) Helicase
 - b) DNA polymerase
 - c) RNA primer
 - d) DNA ligase
11. World "No Tobacco Day" is observed on _____
 - a) May 31
 - b) June 6
 - c) April 22
 - d) October 2
12. Which is used to edit programs?
 - a) Ink scape
 - b) Script editor
 - c) Stage
 - d) Sprite

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PART - B

II Answer any 7 questions. Question no. 22 is compulsory.

7X2=14

13. What is refractive index?
14. State Ohm's law.
15. Write the different types of isotopes of oxygen and its percentage abundance.

16. Differentiate reversible and irreversible reactions.
17. Write a short note on Mesophyll.
18. What are the structures involved in the Protection of brain.
19. What are allosomes?
20. What is Co-efficient of Cubical expansion?
21. What is Scratch?
22. Calculate the amount of energy released when a radioactive substance undergoes fusion and results in a mass defect of 2kg.

PART - C

III Answer any seven questions. (Q.No: 32 is compulsory)

7x4=28

23. a) State Joule's law of heating.
b) An alloy of nickel and chromium is used as the heating element. why?
24. List any four properties of light.
25. a) Write any two features of natural and artificial radioactivity.
b) Give any two uses of radio isotopes in the field of agriculture.
26. How does pH play an important role in Everyday life?
27. a) What is respiratory quotient?
b) What is bolting? How can it be included artificially?
28. Define Ethno botany and write its importance.
29. a) Write the characteristics of insect pollinated flowers.
b) What do you understand by the term Phenotype and Genotype?
30. What Precautions can be taken for preventing heart diseases?
31. What is called homologous series? Give any three of its characteristics?
32. Calculate the % of sulphur in H_2SO_4 .

PART - D

IV Answer all the questions.

3x7=21

33. a) State Newton's laws of motion?
b) The value of Avogadro number _____ [OR]
a) What do you understand by the term ultrasonic vibration?
b) State three uses of ultrasonic vibrations.
c) Name three animals which can hear ultrasonic vibrations.
34. a) Explain the mechanism of cleansing action of soap.
b) Write the structural formula for the following compounds.
a) Propane b) Benzene [OR]
a) What is a chemical equilibrium?
What are the characteristics?
b) Define Combination reaction.
35. Why are Leucocytes classified as granulocytes and agranulocytes? Name each cell and mention its functions. [OR]
a) What are the consequences of soil erosion.
b) Name the types of stem cells.
c) Which organism is considered to be the fossil bird?

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