

Class : 10

Register  
Number**FIRST REVISION EXAMINATION, JANUARY - 2025**

Time Allowed : 3.00 Hours]

**SCIENCE**

[Max. Marks : 75

**PART - I**

- I. Answer all the questions: [akwaacademy.blogspot.com](http://akwaacademy.blogspot.com) 12x1=12
- If the earth shrinks to 50% of its real radius its mass remaining the same weight of the body on the earth will.  
a) decrease by 50%    b) increase by 50%    c) decrease by 25%    d) increase by 300%
  - Kilowatt hour is the unit of  
a) resistivity    b) conductivity    c) electrical energy    d) electrical power
  - Power of a lens is  $-4D$ , then its foca length is  
a) 4 m    b)  $-40$  m    c)  $-0.25$  m    d)  $-2.5$  m
  - Which of the following represents 1 amu?  
a) mass of a C-12 atom    b) mass of a hydrogen atom  
c)  $1/12^{\text{th}}$  of the mass of a C-12 atom    d) mass of O-16 atom.
  - group contains the member fo halogen family.  
a)  $17^{\text{th}}$     b)  $15^{\text{th}}$     c)  $18^{\text{th}}$     d)  $16^{\text{th}}$
  - TEM in soaps represents ----- content in soap.  
a) mineral    b) vitamin    c) fatty acid    d) carbotydrates
  - Which is formed during anaerbic respiration.  
a) Carbohydrate    b) ethyl alcohol    c) Acetyl CoA    d) Pyruvate
  - A patient with blood group was injured in a accident and has blood loss. Which group of blood should be used by a doctor. for transfusion?  
a) O group    b) AB group    c) A or B group    d) All blood groups
  - According to mendel alleles hane the following character.  
a) Pair of genes    b) Responsible for character  
c) Production of gametes    d) Recessive factors
  - Birds have evolved from mammals. (True or false).
  - DNA fingerprinting is based on the principles of identifying ----- sequence of DNA.  
a) Single stranded    b) Mutated    c) Polymorphic    d) repentive
  - Commen energy source in village is -----  
a) electricity    b) coal  
c) biogas    d) wood and animal dung

**PART - II**

- II. Answer any seven questions. Q.No. 22 is compulsory. 7x2=14
- What is power of accommodation of eye?
  - What is the role of the earth wire in domestic circuits?
  - Match:  
a) Co - 60    -    (i) Age of fossil  
b) I - 131    -    (ii) Function of Heart  
c) Na - 24    -    (iii) leukemia  
d) C - 14    -    (iv) Thyroid disease
  - Fill in  
i) The chief ore of Aluminium is -----  
ii) Iron is chiefly extracted from ----- ore.

17. What are the factors influencing the rate of a reaction?
18. How is diastema formed in rabbit?
19. Define reflex arc?
20. Why are thyroid hormones referred as personality hormone?
21. What are transgenic organisms?
22. Give the structural formula for
  - (i) Cyclobutane
  - (ii) Benzene

### PART - III

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

7x4 = 28

23. Explain the types of inertia with examples.
24. i) What is coefficient of cubical expansion?  
b) State Boyle's law. [akwaacademy.blogspot.com](http://akwaacademy.blogspot.com)
25. Distinguish between sound waves and light waves.
26. State any four postulates of modern atomic theory.
27. (i) What is aqueous and non - aqueous solution? Give an example.  
(ii) The aquatic animals live more in cold region.
28. Differentiate soaps and Detergents.
29. Explain the male reproductive system of rabbit with a labelled diagram.
30. a) What is the need of contraception?  
b) What is colostrum?
31. Mention the importance of Ethnobotany.
32. P is a gene required for the synthesis of vitamin A. It is integrated with genome of Q to produce genetically modified plant 'R'.  
(i) What is P Q and R  
(ii) State the importance of 'R' in India.

### PART-IV

IV. Answer all the questions in detail.

3x7=21

33. a) (i) State Joule's law of heating  
(ii) An alloy of nickel and chromium is used as the heating element. Why?  
(iii) How does a fuse wire protect electrical appliances.  
(OR)
- b) What is nuclear reactor? Explain its essential parts with their functions.
34. a) (i) Give any 4 features of 'Modern atomic theory'.  
(ii) Calculate the number of moles in  
(a) 27g of Al (b)  $1.51 \times 10^{23}$  molecules of  $\text{NH}_4\text{Cl}$   
(OR)
- b) (i) What are called thermolysis reactions?  
(ii) Differentiate hygroscopic and deliquescent substances?
35. a) (i) Explain the structure of chromosome?  
(ii) Regular physical exercise is advisable for normal functioning of human body. What are the advantages of practicing exercise?  
(OR)
- b) (i) Define the following:  
(a) Addiction (b) Drug dependence  
(ii) What is the importance of rain water harvesting?