

This Question Paper contains 12 printed pages.
(Sections - A, B, C & D)

Sl.No. 029826

11 (E)

(FEBRUARY-MARCH, 2025)

Time : 3 Hours]

[Maximum Marks : 80

Instructions :

- 1) Write in a clear legible handwriting.
- 2) This question paper has four Sections A, B, C & D and Question Numbers from 1 to 54.
- 3) All questions are compulsory. There are only internal options.
- 4) The numbers to the right represent the marks of the question.
- 5) Draw neat diagrams wherever necessary.
- 6) New sections should be written in a new page. Write the answers in numerical order.
- 7) For diagram / chart based questions, separate questions are given for visually impaired students. Only they have to attend them.

SECTION - A

- Answer the questions 1 to 24 as directed. (Each question carries 1 mark.)
[24]

Choose the correct option from given options :

- 1) While cooking, if the bottom of the Vessel is getting blackened on the outside, it means that. [1]
(A) the Food is not cooked completely
(B) the Fuel is not burning completely
(C) the Fuel is wet
(D) the Fuel is burning completely

- 2) Which of the following is an olfactory indicator? [1]
- (A) Methyl Orange
 - (B) Phenolphthalein
 - (C) Vanilla
 - (D) Turmeric
- 3) $1\mu\text{A} = \underline{\hspace{2cm}}$ A. [1]
- (A) 10^{-6}
 - (B) 10^{-3}
 - (C) 10^3
 - (D) 10^6
- 4) The lungs in human beings are a part of the system for [1]
- (A) Nutrition
 - (B) Transportation
 - (C) Excretion
 - (D) Respiration



5) The crystalline lens of people at old age becomes milky and cloudy. This condition is called _____ [1]

- (A) Cataract
- (B) Myopia
- (C) Hypermetropia
- (D) Presbyopia

6) No matter how far you stand from a mirror, your image appears erect. The mirror is likely to be [1]

- (A) Only plane
- (B) Only concave
- (C) Only convex
- (D) Either plane or convex

■ Fill in the blanks with correct answer.

7) The earth's crust has only _____% carbon in the form of minerals. [1]

(0.02, 0.5, 1)

8) The SI unit of electric potential difference is named after the Scientist _____. [1]

(Andre - Marie Ampere, Alessandro Volta, Georg Simon Ohm)

9) In anaerobic respiration by our muscle cells, the pyruvate is converted into _____ [1]

(Ethanol, Acetic acid, Lactic acid)

10) _____ animal can change sex . [1]

(Lizard, Snail, Frog)

11) The lens formula is _____ [1]

$$\left(\frac{1}{v} - \frac{1}{u} = \frac{1}{f} \quad \left/ \quad \frac{1}{u} - \frac{1}{v} = \frac{1}{f} \quad \left/ \quad \frac{1}{v} + \frac{1}{u} = \frac{1}{f} \right. \right)$$

12) _____ is the Chemical Formula of Cinnabar. [1]

(HgS, ZnS, Cu₂S)

■ State whether the following statements are true or false.

13) Solder is an alloy of lead and tin. [1]

14) A child who inherits a 'Y' chromosome from the Father will be a girl. [1]

15) The twinkling of a star is due to atmospheric refraction of starlight. [1]

16) The concentration of hydronium ions (H₃O⁺) increased when a solution of an acid is diluted. [1]

■ Answer the following questions as directed :

17) Iodine is necessary For the Synthesis of which hormone in human body?[1]

18) If a "trait A" exists in 10% of a population of an asexually, reproducing species and a "trait B" exists in 60% of the same population, which trait is likely to have arisen earlier? [1]

19) In the dispersion of white light through a prism, Which coloured light bends the least? [1]

20) Define : Electric current. [1]

■ Match the following :

A

B

21) Cytokinin

a) Help in the growth of stem [1]

22) Gibberellins

b) Wilting of leaves [1]

c) Promote cell division

A

B

23) The organisms which prepared their own Food

a) Herbivores [1]

24) The organisms which feed on plants

b) Producers [1]

c) Carnivores

SECTION - B

- Answer any Nine (9) questions from the Q.No. 25 to 37 in word limit of 40 to 50 words approximately as directed : (Each question carries 2 marks) [18]

25) A shiny brown coloured element 'X' on heating in air becomes black in colour. Name the element 'X' and the black coloured compound Formed.[2]

26) Give reason : Platinum, Gold and Silver are used to make jewellery. [2]

27) Draw neat and labelled diagram showing nutrition in Amoeba. [2]

(Only For visually impaired students)

27) Explain nutrition in Amoeba. [2]

28) Observe the following diagram. [2]



- Name the type of reproduction
- Name the organism

(Only for visually impaired students)

28) Name any Four modes of reproduction used by single organisms.

29) What is called an unisexual Flower? Write its examples. [2]

30) Why does the Sky appear dark instead of blue to an astronaut? [2]

- 31) A current of 0.5 A is drawn by a Filament of an electric bulb for 20 minutes. Find the amount of electric charge that Flows through the circuit [2]

32)

Material	Resistivity (Ωm)
Silver	1.60×10^{-8}
Copper	1.62×10^{-8}
Iron	10.0×10^{-8}
Mercury	94.0×10^{-8}
Manganese	1.84×10^{-6}

Use the data from the above table to answer the Following questions. [2]

- Which among iron and mercury is a better conductor?
- Which material is the best conductor?

- 33) Explain Solenoid. [2]

- 34) How can you help in reducing the problem of waste disposal? Give any two methods. [2]

- 35) Classify the following ecosystems into natural ecosystem and artificial ecosystems. [2]

Forest, garden, aquarium, Sea

- 36) State the organs of human respiratory system. [2]

- 37) Explain Fleming's left-hand rule. [2]

- 41) Draw neat and labelled diagram of neuron. Write the Function of dendrite. [3]

[Only for visually impaired students]

- 41) Write a short note on neuron.
- 42) What are the changes seen in girls at the time of puberty? [3]
- 43) Differentiate between Male reproductive System and Female reproductive system. [3]
- 44) Name the type of mirror used in the following situations - [3]
- Headlights of a car
 - Side/rear-view mirror of a vehicle
 - Solar Furnace
- 45) Draw a ray diagram showing the image formation by a convex lens when an object is placed between F_1 and $2F_1$ of the lens. Write the position, nature and size of image. [3]

[Only for visually impaired students]

- 45) Explain the sign convention for refraction by spherical mirror. 66
120
4
120
- 46) The potential difference between the terminals of an electric heater is 60 V When it draws a current of 4 A from the Source. What current will the heater draw if the potential difference is increased to 120 V? [3]

SECTION - D

Answer any Five (5) questions from the Q.No. 47 to 54 in word limit of 90 to 120 words approximately as directed : (Each question carries 4 marks) [20]

- 47) Five solutions A, B, C, D and E when tested with universal indicator showed pH as 4, 1, 11, 7 and 9 respectively Which solution is _____ [4]
- neutral
 - Strongly alkaline?
 - Strongly acidic?
- Arrange the pH in increasing order of hydrogen-ion concentration.