

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

Sl.No.

11 (E)
(MARCH, 2023)

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 39.
- 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.

SECTION - A

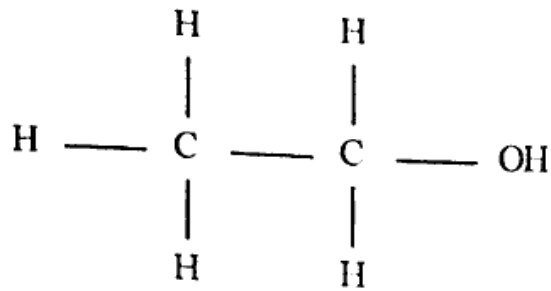
Answer the following Questions (Q.No. 1 to 16). Each question carries 1 mark. [16]

Answer the following multiple choice questions by selecting appropriate option.

- 1) Water is removed when substance 'X' is heated, as well as its color changes from green, then substance X = _____. [1]
(A) CaSO_4
(B) CuSO_4
(C) FeSO_4
(D) BaSO_4

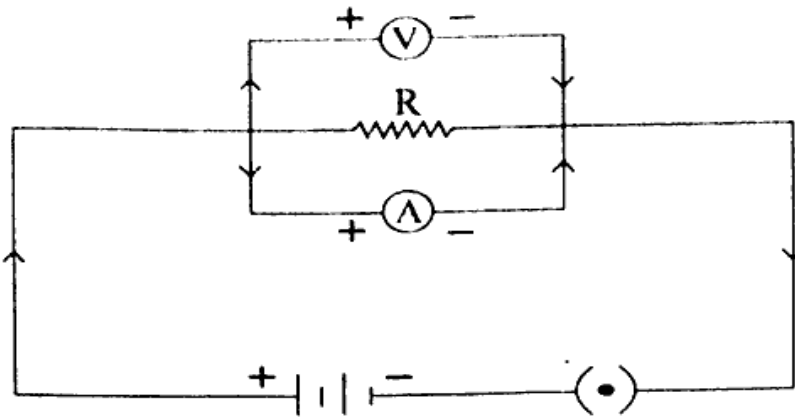
2) Name of the below compound from its structure.

[1]



- (A) Ethane
- (B) Ethanol
- (C) Ethene
- (D) Propanol
- 3) Which is not part of human female reproductive system, as mention below?
- [1]
- (A) Ovary
- (B) Uterus
- (C) Fallopian tube
- (D) Vas deferens

- 4) To check Ohm's law, teacher says students to join circuit and students join circuit as below. [1]



Teacher asked the question to students. Which component is not properly connected in circuit?

- (A) Voltmeter
- (B) Resistance
- (C) Ammeter
- (D) Battery

Fill in the blanks to make the statements true.

(one true statement carries 1 mark)

- 5) Number of maximum electrons in any orbit is depend on _____ formula. [1]

- 6) Plasmodium, divide into many daughter cells simultaneously by [1]
- 7) Prakash Padukone was player of badminton as well as he is father of famous actress Deepika Padukone, neither game or acting is part of heridity because there is a no change in reproductive cells of [1]
- 8) _____ is used to measure power of lens. [1]

Mention given below statements are true or false.

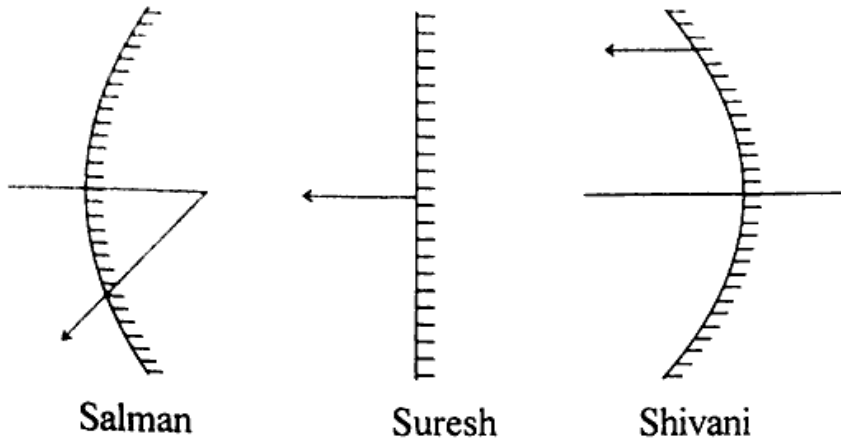
- 9) There is a single bond present between carbon-carbon atoms of unsaturated hydrocarbon. [1]
- 10) Sexual reproduction involves two individuals for the creation of a new individuals. [1]
- 11) Solar cooker achieve a higher temperature by using convex mirror to focus the rays of the sun. [1]

Answer the following questions in short (10 to 20 words).

- 12) Write periodic law of Mendeleev. [1]

13) Write the chemical name of substance which is used by doctor to cure bone fracture. [1]

14) Three students Salman, Suresh and Shivani has different mirrors as below. [1]



Three students try to get image on screen, who gets success?

15) By which programme succeeded in forging an agreement to freeze CFC production at 1986 levels. [1]

16) What is "Bio-diversity"? [1]

SECTION - B

Answer the following Questions (Q.No. 17 to 26) in short (Almost 40 to 50 words). Each question carries 2 marks. [20]

17) Write the chemical reaction of zinc metal and dil. H_2SO_4 . In this reaction H_2 gas is produced but reaction between zinc metal and dil. HNO_3 not produce H_2 gas. Why? [2]

- 18) Write the four physical properties of metals. [2]
- 19) Give scientific reason: "Metallic characteristics in a group are increase as we go top to down in modern periodic table". [2]

OR

What were the limitation of Döbereiner's classification.

- 20) Give difference : Arteries – Veins. [2]

OR

Write a note on excretion in plants.

- 21) How does our body respond when adrenaline is secreted into the blood? [2]
- 22) An electric bulb is rated 220V and 100W. When it is operated on 110V find power. [2]

- 23) Give reason: It is necessary to earthing electric appliances. [2]

OR

Give difference : AC current - DC current.

- 24) Explain Tyndall effect with example. [2]

- 25) What is decomposer? What is the role of decomposers in the ecosystem? [2]
- 26) What changes can you make in your habits to become more environment friendly? [2]

OR

Suggest four approaches towards the conservation of forests.

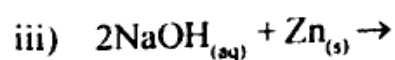
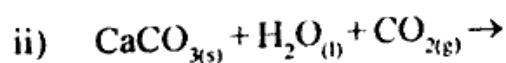
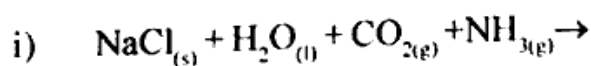
SECTION - C

Answer the following Questions (Q.No. 27 to 34) in brief (Max. 60 to 80 words). Each question carries 3 marks. [24]

- 27) Describe combination reaction with examples. [3]
- 28) Write the preparation and uses of bleaching powder. [3]

OR

Complete the following chemical reactions.



- 29) Describe electrolytic refining of copper with figure. [3]
- 30) Draw the structure of neuron and explain its function. [3]
- 31) How is the sex of the child determined in human beings? Explain. [3]

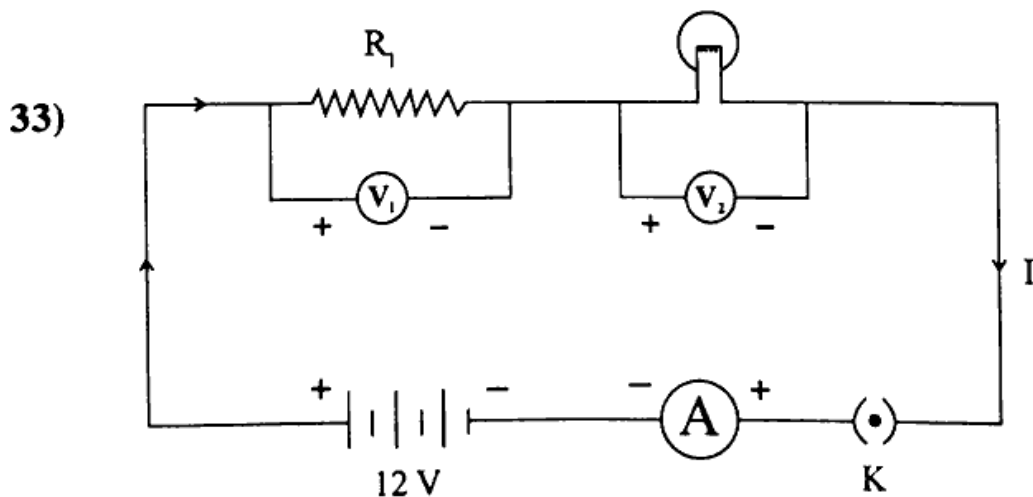
OR

What are fossils? What do they tell us about the process of evolution.

- 32) Describe formation of rainbow with figure. [3]

OR

A student has difficulty in reading the blackboard while sitting in the last row. What could be the defect the child is suffering from? How can it be corrected? Explain with figure.



An electric lamp, whose resistance is 25Ω and a conductor of unknown resistance (R_1) are connected to a 12V battery. If 0.4 A current passing through circuit. Find unknown resistance and voltage at two ends of bulb as well as the ends of unknown resistance. [3]

34) Answer the following questions :

- i) State the principle of solar cell.
- ii) Why are we looking at alternate source of energy?

SECTION - D

Answer the following Questions (Q.No. 35 to 39) in detail (Max. 90 to 120 words). Each question carries 4 marks. [20]

35) Answer the following questions :

[4]

- i) Explain esterification reaction with example.
- ii) What is addition reaction? Explain with example.

OR

What is Covalent bond? Explain Covalent bond in methane and nitrogen molecules with figure.

36) What is excretion? Draw human excretory system and describe its structure. [4]

37) Explain with figure female Reproductive system. [4]

38) Explain with figure refraction through a rectangular glass Slab and State laws of refraction. [4]

- 39) What is Solenoid? Discuss the characteristics of magnetic field generated from a current-carrying solenoid coil with figure. [4]

OR

Explain the underlying principle and construction of an AC electric generator by drawing a labelled diagram.

