CBSE EXAMINATION PAPER-2026

SCIENCE

(Solved)

Time allowed : 3 hours | Maximum Marks : 90

General Instructions :

Read the following instructions carefully and follow them :

i. This question paper contains **45 questions.** All questions are **compulsory.**

ii. This question paper is divided into **5 sections.**

iii. **Section A** – questions number **1 to 3** are case based questions

iv. **Section B** – questions number **4 to 23** are multiple choice questions

v. **Section C** – questions number **24 to 31** are very short answer

vi. **Section D** – questions number **32 to 39** are short answer

vii. **Section E** – questions number **40 to 45** are long answer

viii. There is no overall choice given in the question paper. However, an internal choice has been provided in few questions.

ix. Use of calculator is NOT allowed.

Section A

Question 1.

Read the following passage and answer the questions that follow :

A middle-aged person is facing some cognitive changes in himself. His early symptoms included mild forgetfulness. For example, forgetting where he left his mobile or failing to find words to complete his sentences. He was facing problems in driving a car, climbing up and down the stairs, inserting a plug into an outlet. He slowly developed a sad mood and anxiety

(1) What are voluntary actions ?

[1 Marks]

(2) Which part of the brain is responsible for precision of voluntary actions ?

[1 Marks]

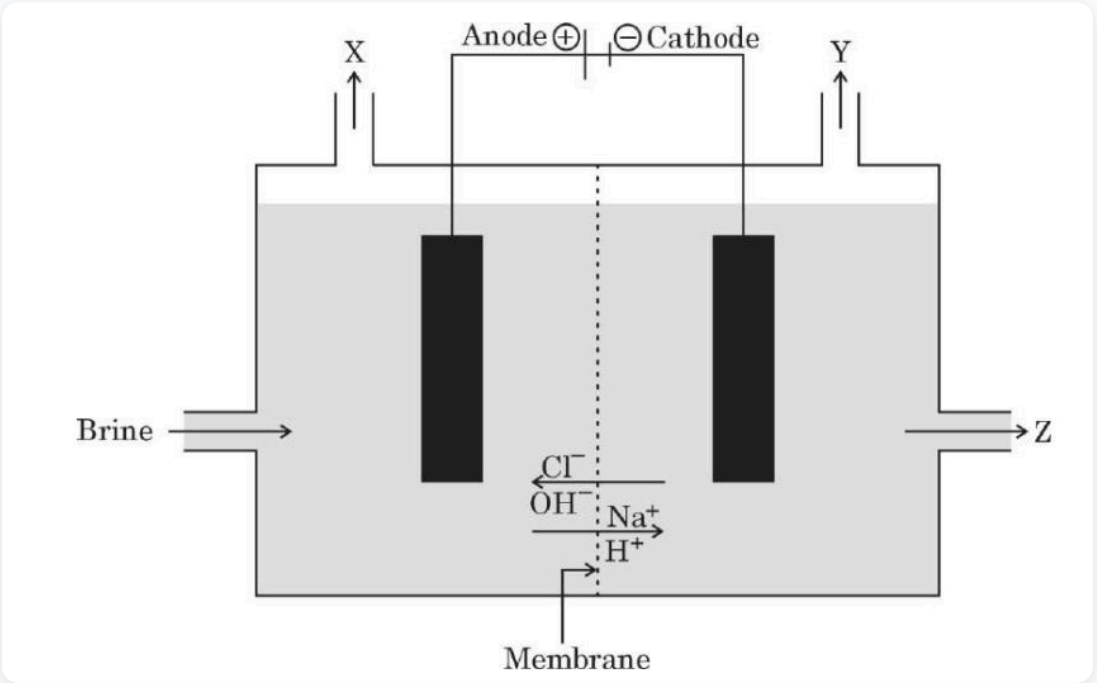
(3) Explain the role of the medulla.

[2 Marks]

Question 2.

Read the following passage and answer the questions that follow :

In the given diagram, when electricity is passed through an aqueous solution of a common salt, a substance ‘Z’ is produced, along with the evolution of gases ‘X’ and ‘Y’. When a burning matchstick is brought near the gas ‘Y’, it burns with a pop sound, whereas ‘X’ is used for disinfecting drinking water. When ‘X’ is passed through slaked lime, an insoluble substance ‘A’ is produced.



(1) Write the names of the gases ‘X’ and ‘Y’

[1 Marks]

(2) Write the balanced chemical equation for the formation of substance 'Z'.

[1 Marks]

(3)

What happens :

(I) If a drop of red litmus solution is added to the aqueous solution of substance 'Z' ?

(II) If CO_2 gas is passed through ammoniacal solution of aqueous NaCl ?

[2 Marks]

Question 3.

Read the following passage and answer the questions that follow :

Swati, a class 10 student, observes that when she passes close to the refrigerator in her kitchen, she feels the heat, although the things kept inside the refrigerator are cool.

(1) Describe the cause of heating in the above-mentioned case.

[1 Marks]

(2)

A current I flows through a resistor of resistance R when the potential difference across it is V. Applying Ohm's law, write the formula for amount of heat produced by the resistor in time t.

[1 Marks]

(3) Write any two practical applications of heating effect of electric current.

[2 Marks]

Section B

Question 4.

The genotype of green stemmed tomato plant is denoted by ‘GG’ and that of purple stemmed tomato plant as ‘gg’. Hybrid of a cross between these two were self-pollinated to obtain F2 progeny. What will be the ratio of GG, Gg and gg in this F2 progeny ?

[1 Marks]

(A) 1 : 1 : 2

(B) 1 : 2 : 1

(C) 3 : 1 : 0

(D) 2 : 1 : 1

Question 5.

Identify the type of tropic movement that is responsible for the movement of the pollen tube towards an ovule from the following options.

[1 Marks]

(A) Geotropism

(B) Hydrotropism

(C) Phototropism

(D) Chemotropism

Question 6.

Spirogyra, despite being a multi-cellular organism, still shows a simple reproductive method. Select the correct option with regard to reproduction in Spirogyra :

[1 Marks]

(A) Asexual reproduction by division of cells into two cells

(B) Sexual reproduction by division of cells into many cells

(C) Asexual reproduction by breaking up of Spirogyra filaments into smaller parts

(D) Sexual reproduction by the formation of gametes after meiosis of cells of filaments followed by fusion of male and female gametes

Question 7. The carbohydrates, which are not used immediately in plants, are stored in the form of ‘a’, which serves as an internal energy reserve. What does ‘a’ stand for ?

[1 Marks]

(A) Starch

(B) Sugar

(C) Protein

(D) Fat

Question 8.

The following events occur during the process of photosynthesis. Choose the option that indicates the correct events.

(i) Oxidation of carbon dioxide to carbohydrates

(ii) Conversion of light energy into chemical energy

(iii) Absorption of light energy by chlorophyll

(iv) Conversion of hydrogen and oxygen into water

[1 Marks]

(A) (i) and (iv)

(B) (iii) and (iv)

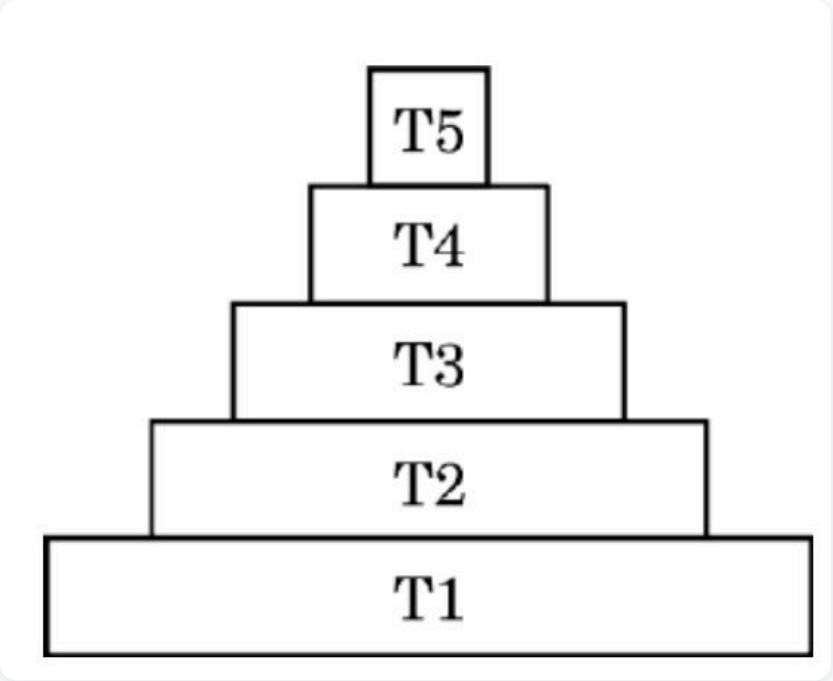
(C) (i) and (ii)

(D) (ii) and (iii)

Question 9.

In the given figure, identify the trophic level having maximum concentration of harmful chemicals.

[1 Marks]



(A) T1

(B) T4

(C) T3

(D) T5

Question 10.

Which of the following limits the number of trophic levels in a food chain ?

[1 Marks]

(A) Availability of water

(B) Deficient food supply

(C) Pollution in air

(D) Decrease in energy at higher levels

Question 11.

two statements are given — one labelled as Assertion (A) and the other labelled as Reason (R). Select the correct answer to these questions from the codes (A), (B), (C) and (D) as given below.

Assertion (A) : Blood plasma transports carbon dioxide in dissolved form, while oxygen is transported by respiratory pigments.

Reason (R) : Carbon dioxide is more soluble in water than in oxygen.

[1 Marks]

(A) Assertion (A) is true, but Reason (R) is false.

(B) Assertion (A) is false, but Reason (R) is true.

(C) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A)

(D) Both Assertion (A) and Reason (R) are true, but Reason (R) is not the correct explanation of Assertion (A)

Question 12.

Two statements are given — one labelled as Assertion (A) and the other labelled as Reason (R). Select the correct answer to these questions from the codes (A), (B), (C) and (D) as given below.

Assertion (A) : There are generally a greater number of individuals at the lower trophic levels of an ecosystem.

Reason (R) : The greatest number is of the producers.

[1 Marks]

(A) Both Assertion (A) and Reason (R) are true, but Reason (R) is not the correct explanation of Assertion (A).

(B) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A)

(C) Assertion (A) is true, but Reason (R) is false.

(D) Assertion (A) is false, but Reason (R) is true.

Question 13.

Which of the following are combination reactions ?

(i) $2KClO_3 \square\square\rightarrow 2KCl + 3O_2$

(ii) $MgO + H_2O \square\square\rightarrow Mg(OH)_2$

(iii) $4Al + 3O_2 \square\square\rightarrow 2Al_2O_3$

(iv) $Zn + FeSO_4 \square\square\rightarrow ZnSO_4 + Fe$

[1 Marks]

(A) (iii) and (iv)

(B) (i) and (iii)

(C) (ii) and (iv)

(D) (ii) and (iii)

Question 14.

A metal carbonate reacts with a solution X which forms a salt, water and a gas Y. What are X and Y ?

[1 Marks]

(A) X – Sodium hydroxide, Y – Carbon dioxide

(B) X – Sodium hydroxide, Y – Hydrogen

(C) X – Hydrochloric acid, Y – Hydrogen

(D) X – Hydrochloric acid, Y – Carbon dioxide

Question 15.

When ferrous sulphate crystals are heated in a test tube, we observe that :

[1 Marks]

(A) A brown gas is evolved.

(B) A colourless gas with no smell is evolved

(C) The green colour of the salt fades and a gas with the smell of burning sulphur is evolved.

(D) The green colour of the salt fades and no gas is evolved.

Question 16.

When Mg metal is treated with hot water, it starts floating on the surface of the water. The reason for its different behaviour is :

[1 Marks]

(A) Mg reacts with water to form CO_2 gas which helps in floating.

(B) Mg reacts with water to produce N_2 gas which helps in floating.

(C) Mg reacts with water to produce H_2 gas which helps in floating.

(D) Mg is a lighter element than water.

Question 17. The pH of the gastric juices released during digestion is :

[1 Marks]

(A) Less than 7

(B) More than 7

(C) Equal to 7

(D) Equal to 0

Question 18.

Baking powder is a mixture of :

[1 Marks]

(A) Sodium carbonate + Tartaric acid

(B) Sodium hydrogen carbonate + Tartaric acid

(C) Sodium carbonate + Acetic acid

(D) Sodium hydrogen carbonate + Acetic acid

Question 19.

A student notices that her silver jewellery turned dull and had a grey-black coating over it after wearing for a few months. What results in the change in colour of the silver metal ?

[1 Marks]

(A) Its colour changes due to rusting

(B) The polish over the jewellery was removed after wearing for a few months.

(C) The jewellery comes in contact with air, moisture and acids and corrodes.

(D) Dust particles over the jewellery change its colour.

Question 20.

Two statements are given — one labelled as Assertion (A) and the other labelled as Reason (R). Select the correct answer to this question from the codes (A), (B), (C) and (D) as given below.

Assertion (A) : Carbon compounds can form chains, branched and ring structures.

Reason (R) : Carbon exhibits the property of catenation.

[1 Marks]

(A) Assertion (A) is false, but Reason (R) is true

(B) Assertion (A) is true, but Reason (R) is false.

(C) Both Assertion (A) and Reason (R) are true, but Reason (R) is not the correct explanation of Assertion (A).

(D) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A).

Question 21.

From the following options choose the one which gives negative magnification greater than one :

[1 Marks]

(A) Concave mirror; Nature of image – virtual

(B) Concave mirror; Nature of image – real

(C) Convex mirror; Nature of image – real

(D) Convex mirror; Nature of image – virtual

Question 22.

A thin beam of white light falls on a face of a glass prism and a spectrum is obtained on a screen. Which of the following options is the correct sequence of colours from top to bottom on the screen ?

[1 Marks]

(A) Red, Yellow, Green, Blue, Violet

(B) Red, Green, Yellow, Violet, Blue

(C) Violet, Blue, Green, Yellow, Red

(D) Violet, Red, Green, Yellow, Blue

Question 23.

Two statements are given — one labelled as Assertion (A) and the other labelled as Reason (R). Select the correct answer to this question from the codes (A), (B), (C) and (D) as given below.

Assertion (A) : Direction of force exerted on a current-carrying conductor placed in a magnetic field remains same if the directions of both magnetic field and current flowing through the conductor are reversed.

Reason (R) : The direction of force exerted on a current-carrying conductor placed in an external magnetic field can be determined by using magnetic compass.

[1 Marks]

(A) Assertion (A) is false, but Reason (R) is true.

(B) Both Assertion (A) and Reason (R) are true, but Reason (R) is not the correct explanation of Assertion (A).

(C) Assertion (A) is true, but Reason (R) is false.

(D) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A).

Section C

Question 24.

“The timing and the amount of hormone secreted by a gland are regulated in the human body.” Justify this statement with the help of an example.

[2 Marks]

Question 25.

Electrical impulse is an excellent means to transmit information in the animal body, but there are some limitations to the use of electrical impulses. State any two limitations.

[2 Marks]

Question 26.

“Variation is useful for the survival of species over time.” Explain this statement with the help of an example.

[2 Marks]

Question 27.

Suggest one best way to dispose of the following wastes :

(i) Kitchen waste

(ii) Metallic waste

(iii) Plastic bottles

(iv) Sanitary waste

[2 Marks]

Question 28.

Read the following passage and answer the questions that follow :

One student was comparing the reactivity of different metals for his science project. He added iron filings in four test tubes A, B, C and D containing aqueous solutions of $ZnSO_4$, $CuSO_4$, $FeSO_4$ and $Al_2(SO_4)_3$. (i) In which of the test tubes will he observe the reaction to be the most vigorous and why ? (ii) Write a balanced equation for the reaction involved.

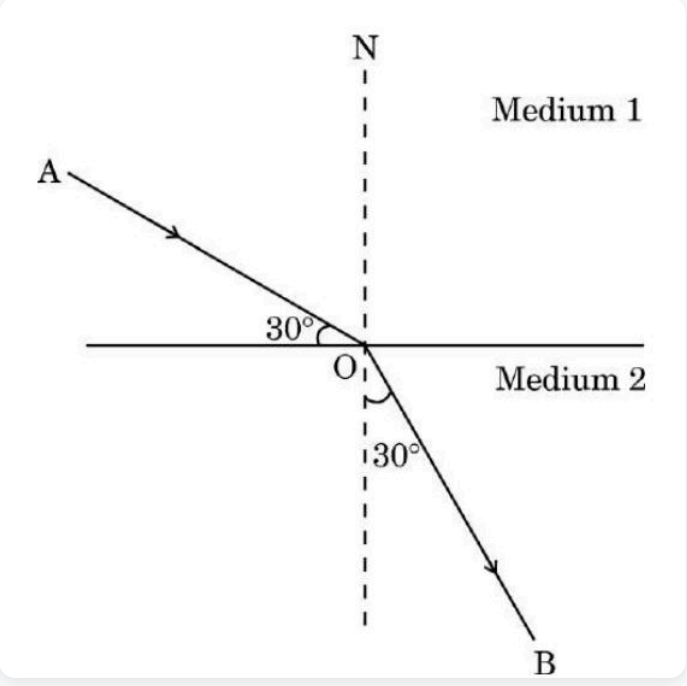
[2 Marks]

Question 29.

With the help of the given ray diagram, calculate the refractive index of Medium 2 with respect to Medium1.

(Given that $\sqrt{3} = 1{\cdot}732$)

[2 Marks]



Question 30.

How does the focal length of eye lens change as the distance of the object from the eyes is altered ? Explain

[2 Marks]

Question 31.

Why is the concave lens used as a corrective lens for a myopic eye ?

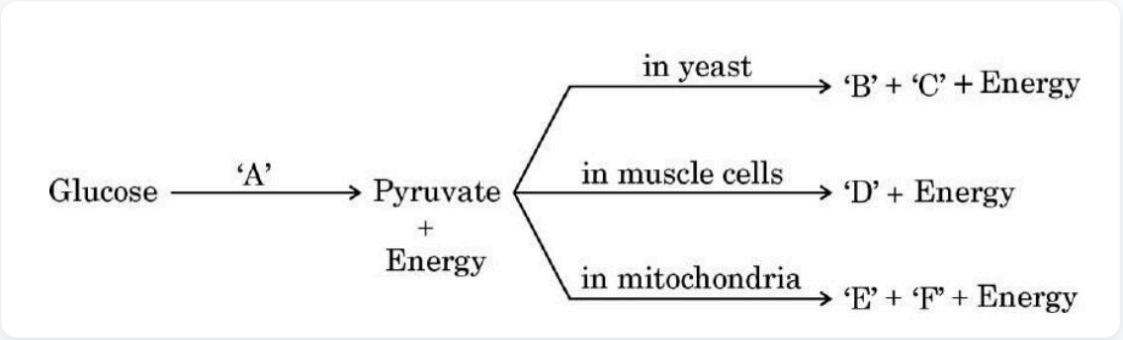
[2 Marks]

Section D

Question 32.

Complete the pathways given below, showing the breakdown of glucose.

[3 Marks]



Question 33.

(a) Giving two examples, justify the statement that the sex of the offspring in all animals is not always genetically determined.

(b) Differentiate between the sex chromosomes of male and female human beings.

[3 Marks]

Question 34.

(i) Write one example each of one metal that is so soft that it can be cut with a knife, and one non-metal that is a good conductor of electricity.

(ii) Using the electronic configuration, explain how Mg atom combines with oxygen to form magnesium oxide by transfer of electrons. [Atomic number : Mg = 12, O = 8]

[3 Marks]

Question 35.

(i) Metal sulphides and carbonates should be converted to their metal oxides in the process of extraction of metals.

(ii) Aluminium oxide is considered as an amphoteric oxide.

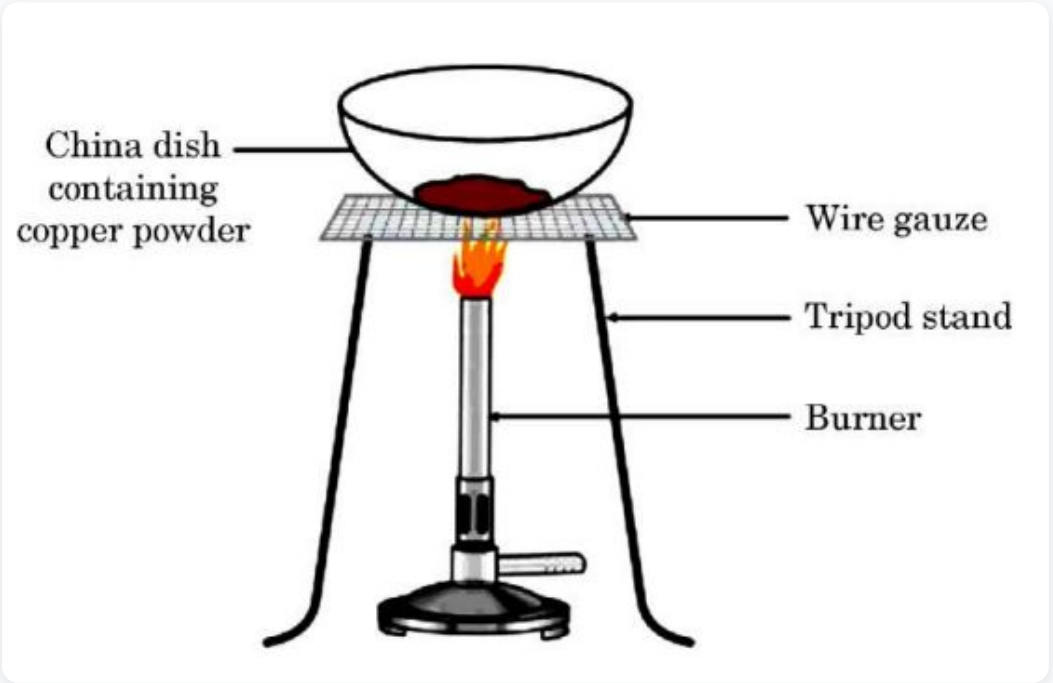
(iii) Metals like Na, K, Ca and Mg are never found in their free state in nature.

[3 Marks]

Question 36.

Seema took a small amount of copper powder in a china dish and heated it. What changes will she observe on heating ? When H_2 gas is passed over this heated substance, what visible changes will be seen in it ? Give the chemical equations of the reactions involved, along with the names and colours of the products in each case.

[3 Marks]



Question 37.

(a)Write the expression for the magnification produced by a lens in terms of object distance and image distance.

(b) A 4 cm tall object is placed perpendicular to the principal axis of a convex lens of focal length 20 cm. Calculate the size of the image formed, if the distance of the object from the lens is 10 cm.

[3 Marks]

Question 38.

What is scattering of light ? How is scattering of light different from reflection of light ? Explain.

[3 Marks]

Question 39.

The values of current I flowing in a given resistor for the corresponding values of potential difference V applied across the ends of resistor are given below in the table :

Plot a graph between V and I and calculate the resistance of that resistor.

[3 Marks]

I (Amperes)	0·4	0·8	1·2	1·6	2·0
V (Volts)	1·2	2·4	3·6	4·8	6·0

Section E

Question 40.

(i) Name an organ that helps in the formation of male germ cells in humans and also mention the condition that favours the formation of male germ cells.

(ii) In male reproductive system, write the pathway followed to deliver male germ cells to the site of fertilisation.

(iii) Mention the main physical feature of the male germ cell that helps it move towards the female germ cell.

[5 Marks]

Question 41.

Radha has three children. She does not want to have more children. Radha visits a nearby hospital, to know the methods to prevent pregnancy.

(i) Mention the name of any two ways other than the surgical methods, following which Radha can avoid unwanted pregnancies.

(ii) Name the surgical methods to prevent pregnancy.

(iii) Give one example each of sexually transmitted diseases caused by bacteria and virus.

[5 Marks]

Question 42.

A carbon compound 'P' of molecular formula C_2H_6O is found to be neutral when tested with red and blue litmus. A gas that burns with a pop sound is produced when sodium metal reacts with compound 'P'.

(i) Identify the compound 'P'.

(ii) The carbon compound 'P' is heated with conc. H_2SO_4 at 443 K to produce compound 'Q'.

(I) Write the chemical equation for the reaction.

(II) What is the role of conc. H_2SO_4 in this reaction ?

(iii) What is likely to be observed on heating compound 'P' with ethanoic acid with an acid as a catalyst ? Write the chemical equation for the reaction.

[5 Marks]

Question 43.

(i) Write the structural formula of benzene.

(ii) State the reason why carbon can neither form C^{4+} cation nor C^{4-} anion.

(iii) What type of bond is formed between carbon and hydrogen ?

(iv) How is ethanol converted to ethanoic acid ?

(v) Complete the following chemical equation :

$CH_3COOC_2H_5 + NaOH \square\square \rightarrow$

[5 Marks]

Question 44.

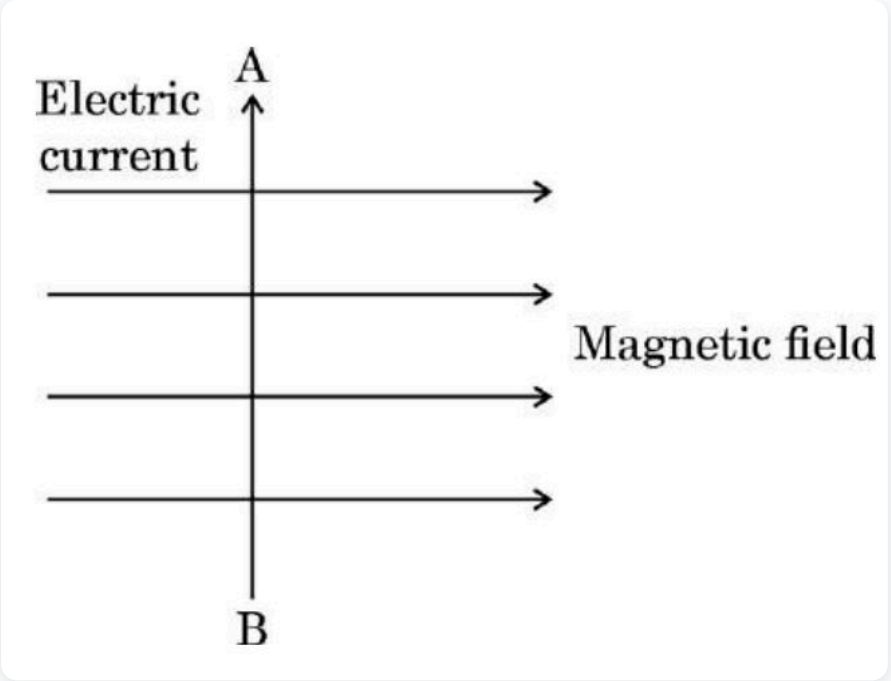
(i) State the rule which gives the direction of force acting on a current-carrying conductor placed in a magnetic field.

(ii) What is a fuse ? Why is it called a safety device ?

(iii) Why are electrical appliances with metallic bodies connected to the mains through a three-pin plug, whereas an electric bulb is connected with a two-pin plug ?

(iv) What will be the direction of force experienced by the conductor AB due to the magnetic field, when current flows in the direction shown ? Name the law you applied to find the direction.

[5 Marks]



Question 45.

(i) Draw the pattern of magnetic field lines through and around a current-carrying circular loop.

(ii) State the rule to find out the direction of the magnetic field inside and around the circular loop.

(iii) Give reasons :

(I) Why should a burnt-out fuse be replaced by another fuse of identical rating only, in an electric circuit ?

(II) Why is soft iron-core used in making an electromagnet ?

[5 Marks]