CBSE EXAMINATION PAPER-2026

SCIENCE

(Solved)

Time allowed : 3 hours | Maximum Marks : 88

General Instructions :

Read the following instructions carefully and follow them :

i. This question paper contains **44 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 30** are very short answer

vi. **Section D** – questions number **31 to 38** are short answer

vii. **Section E** – questions number **39 to 44** 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 :

Not all plants carry out photosynthesis by the same mechanism. In most plants, it depends directly on gaseous carbon dioxide that diffuses into the leaf. However, some plants can store carbon dioxide in the vacuole of the leaf cells as part of a complex carbon compound. This compound is transported to the chloroplast and releases carbon dioxide when required for photosynthesis. This special

mechanism is believed to have evolved as an adaptation in such plants which do not open stomata during the daytime to conserve water for survival in dry conditions (desert conditions).

(1) Which process in these plants is minimised to help the plants survive in dry conditions ?

[2 Marks]

(2) Which part of the leaf is responsible for exchange of gases during photosynthesis ?

[2 Marks]

Question 2.

Read the following passage and answer the questions that follow :

An electrochemical process is used for refining metals by selectively dissolving and depositing them through electrolysis. Electrolytic refining is used for metals like Copper, Zinc, Tin, Nickel, Silver and Gold.

(1) In electrolytic refining of copper, name the anode and the cathode.

[1 Marks]

(2) Define anode mud.

[1 Marks]

(3) With the help of chemical equations, show the extraction of copper from its ore Cu_2S.

[2 Marks]

Question 3. The variation of image distance (v) with the object distance (u) for a convex lens is given in the following observation table. Analyse it and answer the questions given below :

S.No.	Object distance (u) cm	Image distance (v) cm
1	– 150	+ 30
2	– 75	+ 37·5
3	– 50	+ 50
4	– 37·5	+ 75
5	– 30	+ 150
6	– 15	+ 37·5

(1) Without calculation, find out the focal length of the given convex lens. Justify your answer.

[1 Marks]

(2) Which one of the observations given in the table is not correct and why ?

[1 Marks]

(3) Find out the value of magnification for u = – 30 cm. Write the nature of the image formed. Give reason for your answer.

[2 Marks]

Section B

Question 4.

Pravin was given a list of characteristics associated with the process of anaerobic respiration in humans, in the table given below : Which of the above characteristics is/are related to the above process ?

[1 Marks]

	Location	Condition	End Product
Characteristic	(i) Muscle Cell	(ii) Requires presence of Oxygen (O_2) and Carbon dioxide (CO_2)	(iii) 3-Carbon molecules

(A) (i) only

(B) (ii) and (iii)

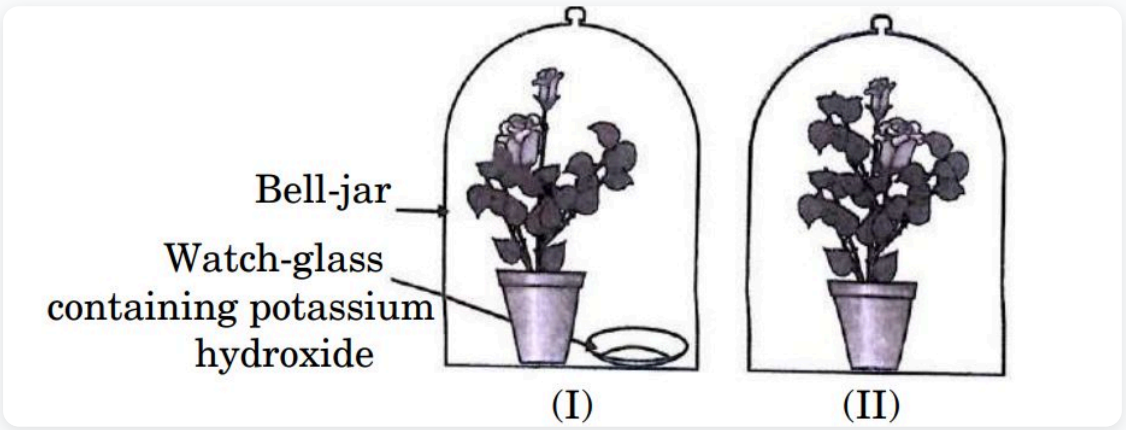
(C) (i) and (ii)

(D) (i) and (iii)

Question 5.

Observe the figure given below and identify the incorrect step for the activity set-up :

[1 Marks]



(A) Both plants are covered with separate wooden bell-jars

(B) Both plants are kept in the dark room for three days before placing them in separate glass jars.

(C) Use vaseline to seal the bottom of the jars with the glass plates.

(D) Both potted plants were kept in sunlight for a few hours before the iodine test for the presence of starch.

Question 6.

Walking in a straight line and riding a bicycle are activities which are possible due to coordination of which part of the brain ?

[1 Marks]

	(Part of the Brain)	*(Name of the area of the Brain)*
(A)	Fore-Brain	Cerebrum
(B)	Mid-Brain	Cerebellum
(C)	Hind-Brain	Cerebellum
(D)	Hind-Brain	Medulla

(A) Fore-Brain - Cerebrum

(B) Mid-Brain - Cerebellum

(C) Hind-Brain - Medulla

(D) Hind-Brain - Cerebellum

Question 7.

In a synapse, the chemical signal is transmitted from :

[1 Marks]

(A) Dendritic end of one neuron to axonal end of another neuron.

(B) Axon to cell body of the same neuron.

(C) Axonal end of one neuron to dendritic end of another neuron.

(D) Cell body to axonal end of the same neuron.

Question 8. Organisms of a higher trophic level which feed on several types of organisms belonging to a lower trophic level form the :

[1 Marks]

(A) Food web

(B) Ecosystem

(C) Food chain

(D) Ecological pyramid

Question 9.

In accumulation of toxic substances at higher trophic levels of an ecosystem through the food chain, which of the following organisms is affected the most ?

[1 Marks]

(A) Small aquatic plants

(B) Human beings

(C) Small fish

(D) Large fish

Question 10.

The growth of tendrils in grapes plants is due to :

[1 Marks]

(A) Effect of gravity

(B) Rapid cell division in tendril cells that are away from the support

(C) Rapid cell division in tendril cells in contact with the support

(D) Effect of light

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) : Natural replenishment of soil will not take place in absence of microbes.

Reason (R) : Microbes, comprising of bacteria and fungi, break down dead remains and waste products of organisms, and they go into the soil.

[1 Marks]

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

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

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

(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) : The basic filtration unit in the kidneys, like in the lungs, is a cluster of very thin-walled blood capillaries.

Reason (R) : Each capillary cluster in the kidney is associated with the cup-shaped end of a coiled tube called Bowman's capsule.

[1 Marks]

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

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

Question 13.

Which of the following is an example of a displacement reaction ?

[1 Marks]

(A) The electrolysis of water

(B) The combustion of natural gas

(C) The reaction of a reactive metal with dilute acid

(D) The reaction of quick lime with water

Question 14.

To a small amount of copper oxide in a beaker, when we add dilute hydrochloric acid slowly with stirring, the change in the colour of the solution is due to the formation of :

[1 Marks]

(A) Copper(I) oxide, which is black in colour.

(B) Copper(II) oxide, which is black in colour

(C) Copper(I) chloride, which is blue in colour

(D) Copper(II) chloride, which is blue-green in colour

Question 15. In the following equation. x KI + H_2O_2 □□→ I_2 + y KOH x and y respectively are :

[1 Marks]

(A) 2, 2

(B) 1,2

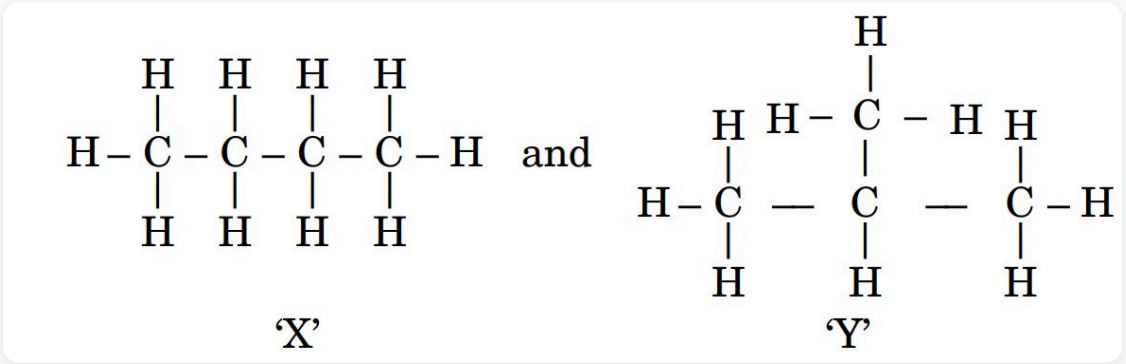
(C) 1,1

(D) 2,1

Question 16.

Consider the structures 'X' and 'Y' given below : Which of the following statements are correct ? (i) 'X' and 'Y' are homologues. (ii) 'X' and 'Y' have the same structural formula, but different molecular formula. (iii) 'X' and 'Y' have the same molecular formula, but different structural formula. (iv) 'X' and 'Y' are structural isomers.

[1 Marks]



(A) (ii) and (iv)

(B) (i) and (iv)

(C) (i) and (iii)

(D) (iii) and (iv)

Question 17.

The reaction of calcium with cold water is :

[1 Marks]

(A) Exothermic, but the heat evolved is not sufficient for the hydrogen to catch fire.

(B) Slow and endothermic.

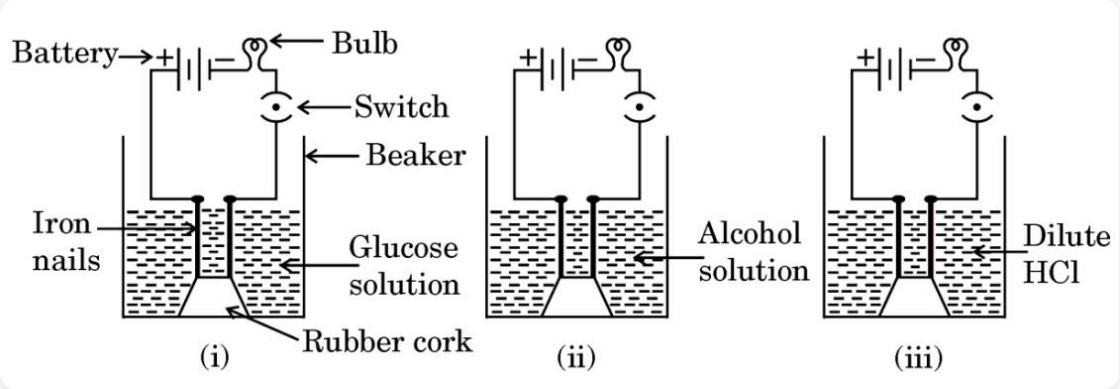
(C) Less violent, but the heat evolved is sufficient for the hydrogen to catch fire

(D) Very violent and exothermic and hydrogen catches fire.

Question 18.

In which case/cases will the bulb glow considering that all other connections of electric circuit are complete and working ?

[1 Marks]



(A) Case (iii) only

(B) Cases (ii) and (iii)

(C) Case (ii) only

(D) Case (i) only

Question 19.

When zinc reacts with NaOH, the product formed is :

[1 Marks]

(A) Na_2ZnO_2

(B) Zno

(C) $Zn(OH)_2$

(D) Na_2O

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) : There are large number of compounds with many carbon atoms linked to each other. Reason (R) : Carbon-Carbon bond is very strong and stable

[1 Marks]

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

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

Question 21.

The correct way to connect an ammeter and a voltmeter in an electric circuit is :

[1 Marks]

(A) Ammeter in series and voltmeter in parallel

(B) Ammeter in parallel and voltmeter in series

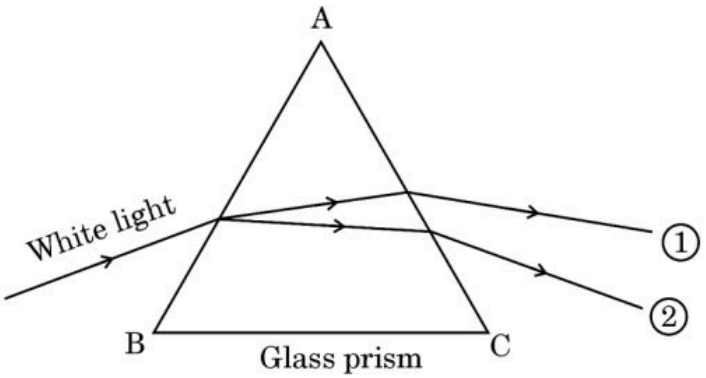
(C) Ammeter and voltmeter both in series

(D) Ammeter and voltmeter both in parallel

Question 22.

Observe the given ray diagram showing refraction through a prism and choose the correct option for colour of rays 1 and 2 :

[1 Marks]



	Colour of ray 1	*Colour of ray 2*
(A)	Blue	Red
(B)	Green	Yellow
(C)	Red	Violet
(D)	Violet	Red

(A) Blue - Red

(B) Green - Yellow

(C) Red - Violet

(D) Violet - Red

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) : The needle of a compass, kept in an external magnetic field, always aligns itself in the North-South direction of the Earth.

Reason (R) : The behaviour of the needle of the compass is similar to the behaviour of a freely suspended bar magnet.

[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 false, but Reason (R) is true.

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

Section C

Question 24.

(i) Chlorofluorocarbons (CFCs) have been linked to depletion of ozone layer. In 1987, the United Nations Environment Programme (UNEP) succeeded in making an agreement. State this agreement.

(ii) What is the role of ozone in our atmosphere ?

[2 Marks]

Question 25.

What kind of respiration provides more energy and why ?

[2 Marks]

Question 26.

Separation of right side and left side of the heart is useful to keep oxygenated and deoxygenated blood from mixing. Various organisms have different types of heart.

(I) Fill in the blanks

(i) to (iii) correctly according to the type of organisms and their evolution in terms of blood circulation :

(II) Which type of circulation is most efficient ?

[2 Marks]

Organisms	Number of chambers in heart	Type of blood being circulated	Type of circulation
Fish	(i) _____	Mixed	Single
(ii) _____	3-chambered	Mixed	Incomplete double circulation
Birds and Mammals	4-chambered	Separated circulation path of oxygenated and deoxygenated blood	(iii) _____

Question 27.

Show the formation of the following ionic compounds by transfer of electrons between the combining atoms :

(i) Sodium oxide (Na_2O)

(ii) Magnesium chloride ($MgCl_2$)

(Given : Atomic number : Na = 11, Mg = 12, O = 8, Cl = 17)

[2 Marks]

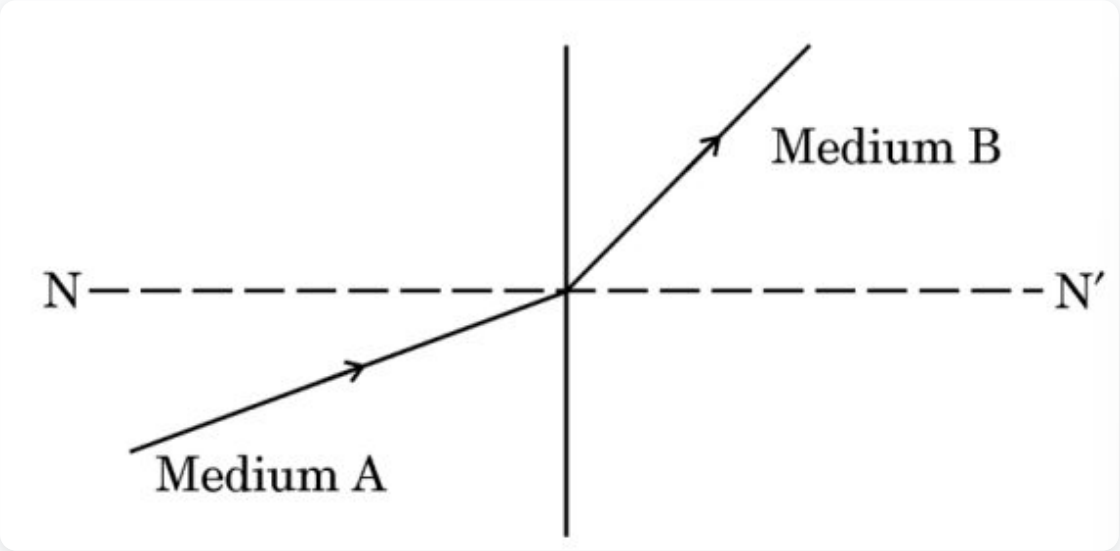
Question 28.

A ray of light enters into medium B from medium A as shown in the given figure :

(a) Which one of these two media is optically denser than the other medium ? Justify your answer.

(b) If the speed of light in medium A is V_A and in medium B is V_B , then what is the refractive index of medium B with respect to medium A ?

[2 Marks]



Question 29.

What happens when light is scattered from (i) very fine particles and (ii) very large size particles of medium ? Justify your answer in each case.

[2 Marks]

Question 30.

With the help of a ray diagram, explain any phenomenon of formation of spectrum in nature.

[2 Marks]

Section D

Question 31.

In xylem tissue, vessels and tracheids of the roots, stems and leaves are interconnected to form a continuous system of water-conducting channels reaching all parts of the plant. Explain how this is achieved.

[3 Marks]

Question 32.

Show the cross and observations made by Mendel when he crossed pure tall pea plant with a pure short pea plant to get F_1 progeny.

[3 Marks]

Question 33.

2 g of green coloured crystals of ferrous sulphate are heated in a dry boiling tube. Name the type of chemical reaction taking place. Write the balanced chemical equation for the reaction. Is this an exothermic or an endothermic reaction ?

[3 Marks]

Question 34.

Give reasons :

(i) For dilution of an acid, acid is added into water and not water into acid.

(ii) Dry HCl gas does not turn blue litmus red whereas dilute hydrochloric acid does.

(iii) Blue colour of Copper(II) sulphate crystals turns white on heating.

[3 Marks]

Question 35.

Write the preparation of the following compounds with balanced chemical equation :

(i) NaOH by chlor-alkali process

(ii) Baking Soda

(iii) Plaster of Paris

[3 Marks]

Question 36.

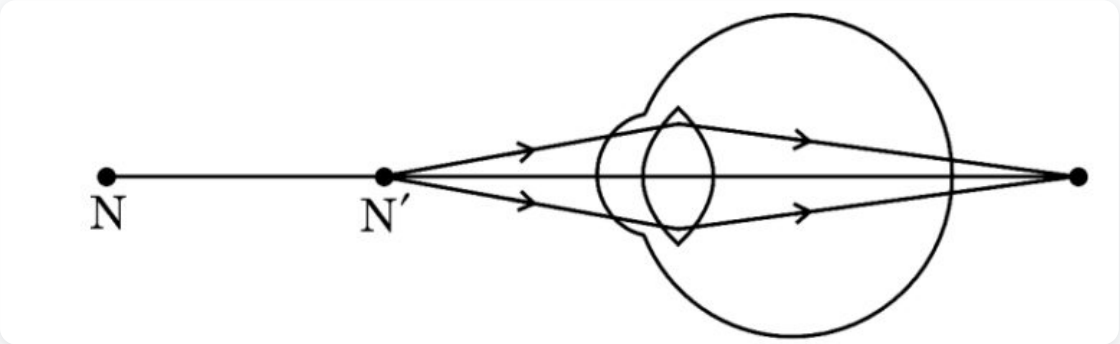
Study the given diagram and answer the questions that follow :

(a) Write the name of the eye defect shown in the diagram. Where is the image formed in this eye defect with respect to the retina of the eye ?

(b) List two causes of this eye defect.

(c) With the help of a diagram, show how this eye defect of vision is corrected.

[3 Marks]



Question 37.

(a) Name a device which is used to :

(i) Maintain a constant potential difference in a circuit.

(ii) Change the electric current in an electric circuit.

(b) When the potential difference between the terminals of an electric heater is 110 V, a current of 5 A flows through it. What will be the value of current flowing through it when the potential difference is increased to 220 V ?

[3 Marks]

Question 38.

Consider the given electric circuit :

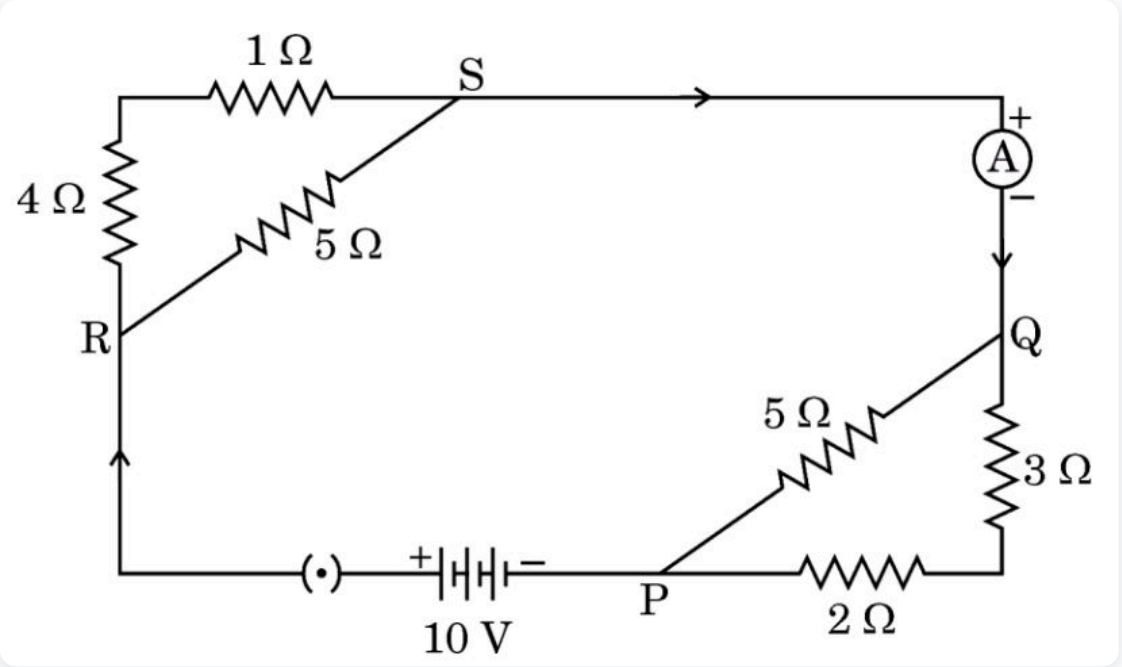
Calculate the following :

(a) Total resistance of the circuit

(b) The electric current drawn from the battery

(c) Potential difference between points P and Q

[3 Marks]



Section E

Question 39.

Observe the given diagram and answer the questions that follow :

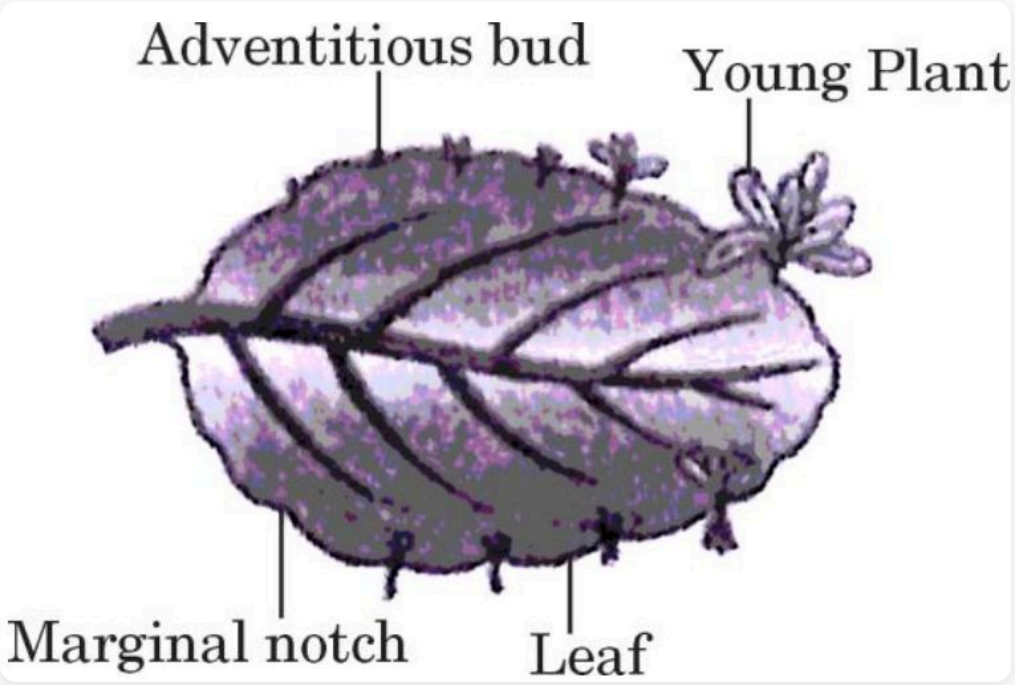
(i) Give the name of the structure and type of reproduction shown in the above diagram.

(ii) State one advantage and one disadvantage of the above mentioned method of reproduction.

(iii) Give reason : Asexual reproduction lacks genetic variation.

(iv) Why have higher organisms resorted to sexual reproduction in spite of its complexity ?

[5 Marks]



Question 40.

Observe the given diagram and answer the questions that follow :

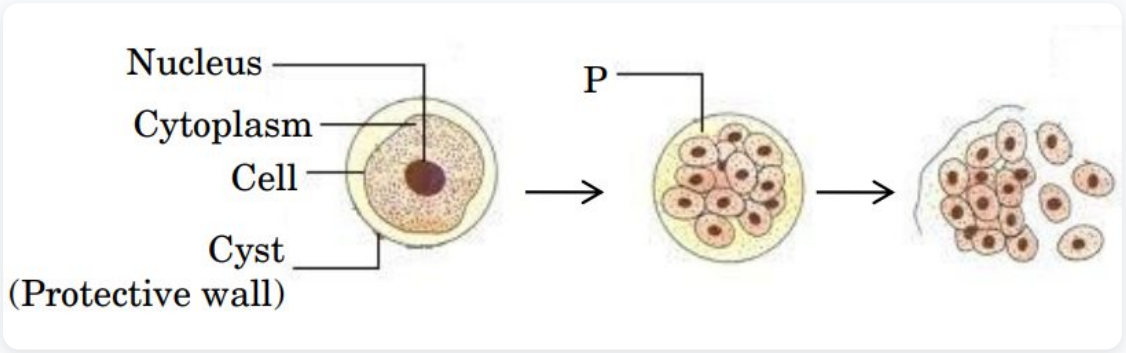
(i) Give the name and type of reproduction shown in the above diagram.

(ii) Comment on the processes taking place in stage P.

(iii) Name an organism which reproduces by the above mentioned method.

(iv) Name the method that can be used to raise plants that have lost their capacity to produce seeds. List any two advantages of growing plants by such a method.

[5 Marks]



Question 41.

(i) What is homologous series ? Which two of the following organic compounds belong to the same homologous series ? C2H4 , C4H10, C3H4 , C4H8

(ii) Write the product(s) in the following reactions :

(iii) Why does micelle formation take place when soap is added to water ?

[5 Marks]

$$\text{(I)}\quad CH_3 - CH_2 - OH + CH_3COOH \xrightarrow{\text{Acid}}$$

$$\text{(II)}\quad C_2H_5OH + O_2 \xrightarrow{\text{Burning}}$$

Question 42.

(I) Name the following compounds :

(ii) Name the reaction which is commonly used in the conversion of vegetable oils to fats.

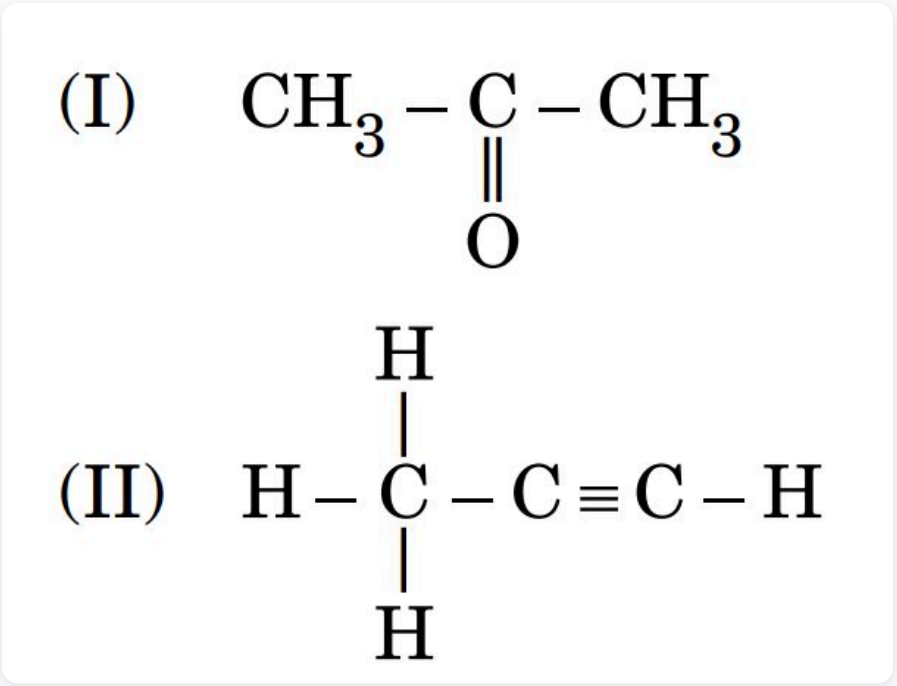
(iii) Why is the melting point of C_4H_{10} higher than C_3H_8 ?

(iv) What happens when a piece of sodium is dropped into ethanol ?

(v) Write the products in the following reaction :

$CH_3COOC_2H_5$+ NaOH □□→

[5 Marks]



Question 43.

(i) What is a solenoid ? Draw a diagram showing the magnetic field pattern due to a current-carrying solenoid (inside and outside).

(ii) Name any two factors on which the magnitude of the magnetic field due to a current-carrying solenoid depends.

(iii) A current-carrying solenoid is stretched and converted into a straight wire carrying current. Draw a diagram showing the magnetic field pattern around it and mark the direction of the magnetic field.

[5 Marks]

Question 44.

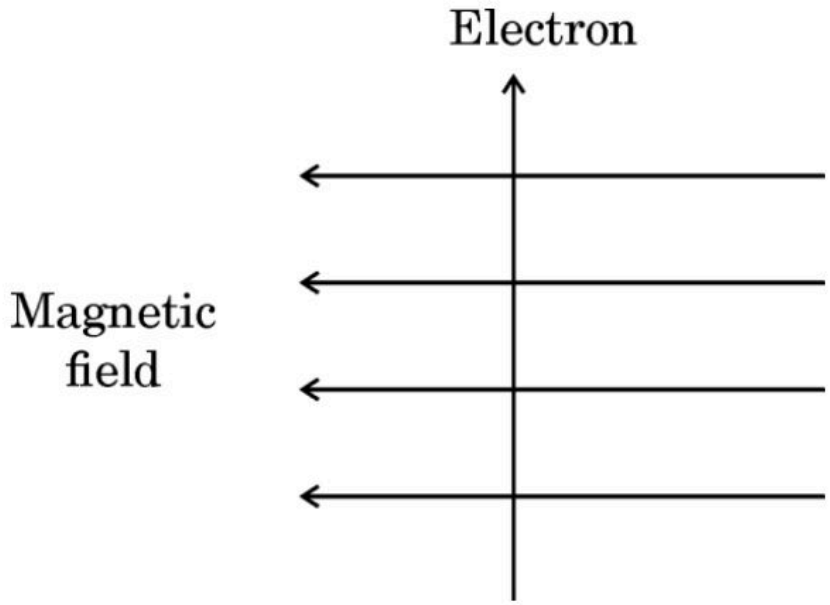
(i) With the help of a diagram, show that a current-carrying conductor placed in an external magnetic field, experiences a force. Indicate the direction of the field, current and force clearly.

(ii) The diagram given below shows an electron moving in a uniform magnetic field.

(I) What will be the direction of the force acting on the electron ?

(II) What will happen to the direction of the force acting on the electron, if the direction of the magnetic field as well as the direction of motion of the electron, both are reversed ?

[5 Marks]


Electron
Magnetic field