

Q.P. SET CODE
B

MT - X

Seat No.

2017 ___ 1100 - MT - X - SCIENCE & TECHNOLOGY - II (72) - SET - B (E)

Time : 2 Hours

(Pages 3)

Max. Marks : 40

Note :

- (i) Draw well-labelled diagrams wherever necessary.
- (ii) All questions are compulsory.
- (iii) Students should write the answers of questions in sequence.

Q.1. (A) Answer the following sub-questions :

(1) Fill in the blanks and rewrite the complete statements : 2

- (i) do not possess a nervous system.
- (ii) Dominant character masks the character.

(2) State whether the following statements are true or false and if false, write the correct statement : 2

- (i) Butyl alcohol is a higher homologue of ethyl alcohol.
- (ii) Carbohydrates are the body building nutrients.

(3) Complete the analogy : 1

Root, stem, leaf : vegetative reproduction :: Flower :

Q.1. (B) Rewrite the following statements by selecting the correct options : 5

- (1) The exchange of respiratory gases in the cells of plants occurs by the process of..... .
 - (a) osmosis
 - (b) diffusion
 - (c) glycolgysis
 - (d) exhalation

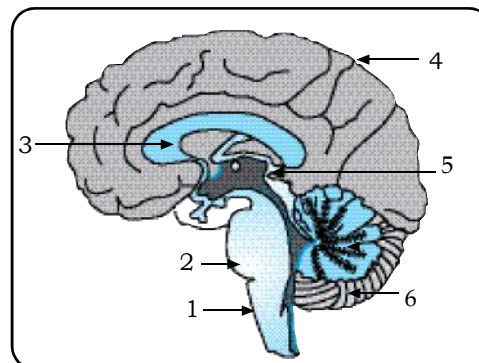
- (2) Reaction of iron nails with copper sulphate solution is an example of..... .
(a) combination reaction (b) decomposition reaction
(c) displacement (d) double displacement
- (3) For binary fission, amoeba requires parent cell/cells.
(a) Three (b) Two
(c) One (d) Zero
- (4) The process of absorption of water into raisins occurs through its membranes. This process is known as..... .
(a) Absorption (b) Diffusion
(c) Osmosis (d) Adsorption
- (5) What is ethanoic acid which solidifies below 290 K, known as ?
(a) Ice (b) Solid acetic acid
(c) Glacial acetic acid (d) Ethyl acetate

Q.2. Answer the following subquestions : (any five)**10**

- (1) Draw a neat labelled diagram of the Human excretory system.
- (2) Differentiate between Monohybrid cross and Dihybrid cross.
- (3) Explain the following chemical reaction with the help of balanced equation : Calcium reacts with cold water.
- (4) What is recycling? Give one example.
- (5) Write the physical properties of ethanol.
- (6) Define vestigial organs with the help of an example.

Q.3. Answer the following subquestions : (any five)**15**

- (1) Write the names of the indicated parts 1 to 6 in the following diagram:



- (2) State work of WBCSD.
- (3) (a) Draw the structure of benzene.
(b) Write the IUPAC names of the following compounds :
- (i) $\text{CH}_3\text{CH}_2\text{OH}$ (ii) CH_3COOH
(iii) $\text{CH}_3\text{CH}_2\text{Cl}$ (iv) CH_3CHO
- (4) Give the embryological evidence to support the theory of evolution.
- (5) What are neurons and how are they classified? Also state their functions.
- (6) What would be the consequences of deficiency of haemoglobin in the human body ?

Q.4. Answer the following subquestion : (any one)**5**

- (1) Answer the following questions with respect to the sexual reproduction in plants :
- (i) State the name of the functional unit concerned with sexual reproduction.
- (ii) Name the part made up of the stigma, style and ovary.
- (iii) Name the swollen lower part of the carpel.
- (iv) Name the male part of the flower.
- (v) Where are the pollen grains produced?
- (2) In the extraction of aluminium.
- (i) Name the process of concentration of bauxite.
- (ii) Write the cathode reaction in electrolytic reduction of alumina.
- (iii) Write the function and formula of cryolite in the extraction of aluminium.
- (iv) Write the chemical equation for the action of heat on aluminium hydroxide.
- (v) Draw a neat labelled diagram of extraction of aluminium.

Best Of Luck 🍀