

# BOARD QUESTION PAPER : JULY 2016

## SCIENCE AND TECHNOLOGY

Time: 2 Hours

Total 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.

### SECTION B

1. (A) (a) **Fill in the blanks:** [3]
- i. \_\_\_\_\_ acid inhibits growth leading to wilting of leaves.
  - ii. The organic compounds having double or triple bond in them are termed as \_\_\_\_\_.
  - iii. Lymph flows in \_\_\_\_\_ direction.
- (b) Write the structural formula of the following compound:  
'Ethane'. [1]
- (c) Name the mode of reproduction process seen in yeast. [1]
- (B) **Choose the correct alternative and rewrite the following:** [5]
- i. Fermentation is a type of \_\_\_\_\_.  
(A) aerobic respiration (B) anaerobic respiration  
(C) exothermic reaction (D) none of the above
  - ii. Some acetic acid is treated with solid  $\text{NaHCO}_3$ , the resulting solution will be \_\_\_\_\_.  
(A) colourless (B) blue  
(C) green (D) yellow
  - iii. Ramesh observed a slide of *Amoeba* with elongated nuclei. It would represent \_\_\_\_\_.  
(A) Binary fission (B) Budding  
(C) Multiple fission (D) None of the above
  - iv. Twenty dry raisins were soaked in 50 ml of water and kept for one hour at  $50^\circ\text{C}$ . Which out of the following is the correct observation?  
(A) 8 raisins absorbed water (B) 18 raisins absorbed water  
(C) 15 raisins absorbed water (D) All raisins absorbed water
  - v. Iron is \_\_\_\_\_.  
(A) more reactive than Zn (B) more reactive than Al  
(C) less reactive than Cu (D) less reactive than Al
2. **Answer the following questions (any five):** [10]
- i. Gold and silver are used to make jewellery. Give reason.
  - ii. Explain the following reaction with balanced chemical equation:  
Calcium reacts with water.
  - iii. Write any two physical properties of Ethanol.
  - iv. Roots of plants grow away from light. Give scientific reasons.
  - v. In which livings, female decides the sex? Give two examples.
  - vi. Give the molecular and structural formulae of Benzene.
3. **Answer the following questions (any five):** [15]
- i. What do you mean by vestigial structures? Name four vestigial organs found in man.
  - ii. State Darwin's theory of evolution.
  - iii. Draw a diagram of longitudinal section of flower and label the following parts:
    - a. Petal
    - b. Ovary
    - c. Anther
    - d. Sepal

- iv. Explain the following terms:
  - a. Reproduction
  - b. Vegetative propagation
  - c. Pollination
- v. Write the names and functions of three parts of human nervous system in which it is divided.
- vi. Geeta dipped a copper coin in a solution of silver nitrate. After some time she saw the silver shine on the coin. Why? Give the balanced chemical equation for the same and name the type of reaction.

**4. Answer any one of the following questions:**

**[5]**

- i.
  - a. What is recycling of waste?
  - b. Give one example of Reuse.
  - c. Write the advantages of recycling.
- ii.
  - a. List the organs of Human respiratory system.
  - b. Explain 'Inhalation'.