



BOARD ACTIVITY SHEET: March 2025

Science and Technology Part - 2

Time: 2 Hours

Max. Marks: 40

- Note:**
- All questions are compulsory.
 - The numbers to the right of the questions indicate full marks.
 - In case of MCQs [Q. No. 1(A)] only the first attempt will be evaluated and will be given credit.
 - Scientifically and technically correct, labeled diagrams should be drawn wherever necessary.
 - Each new question should be started on a new page.

Q.1. (A) Choose the correct option and write the correct alternative: [5]

- A molecule of glucose is completely oxidised in aerobic respiration and molecules of H_2O and _____ are produced along with energy.
(A) CO_2 (B) O_2 (C) NaOH (D) HNO_3
- Vinegar contains _____ acid.
(A) acetic (B) lactic (C) tartaric (D) hydrochloric
- Any nucleotide of the gene suddenly changes its position that causes a minor change which is nothing but the _____.
(A) changes (B) mutation (C) disability (D) translocation
- In humans, sperm production occurs in the _____ organ.
(A) vas deferens (B) ejaculatory duct
(C) testes (D) urinogenital duct
- Solar photovoltaic cells convert the solar radiation energy directly into _____ energy.
(A) Chemical (B) Solar (C) Mechanical (D) Electrical

(B) Answer the following questions: [5]

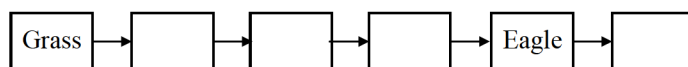
- Find the odd one out:
Fragmentation, Regeneration, Budding, Fertilization.
- Write the correct co-relation:
Diabetes: Insulin :: Cancer: _____
- State whether true or false:
Study of fossils is an important aspect of the study of evolution.
- Give any *two* commercial uses of Biotechnology.
- Being a fish, I perform respiration with the help of lungs. Who am I?

Q.2. (A) Give scientific reasons (any two): [4]

- Sometimes, higher plants and animals too perform anaerobic respiration.
- It is not right to consider the mother responsible, for giving birth to a girl child.
- The energy generated from nuclear fuels is not environment friendly.

(B) Answer the following questions (any three): [6]

- Complete the following food chain:



- Distinguish between the following:
Class Pisces and Class Reptiles

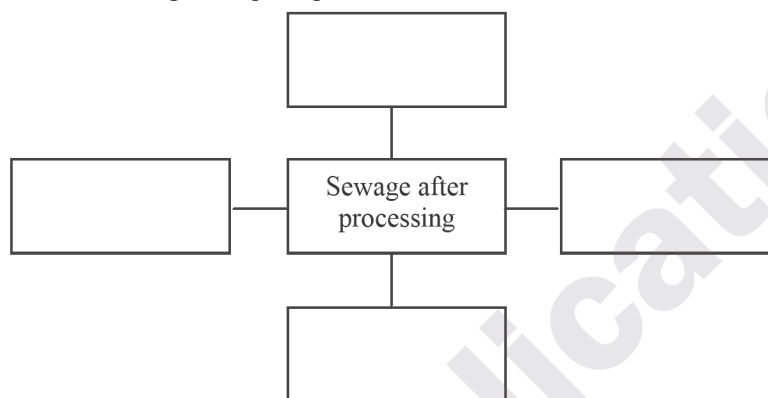


iii. Observe the following picture and write any *two* effects of this disaster:



iv. Write any *four* methods to reduce stress.

v. Complete the following conceptual picture:



Q.3. Answer the following questions (any five):

[15]

- i. Define heredity. Explain the mechanism of hereditary changes.
- ii. Write any *four* stages of mitosis and explain any *two* of them.
- iii. Explain with examples types of asexual reproduction in unicellular organism.
- iv. Which fuel is used in thermal power plant? Write any *two* problems associated with this type of power generation.
- v. Write *three* characteristics of phylum-Mollusca.
- vi. What are the constituents of acid rain? What are its *two* effects on earth’s surface?
- vii. Solve the following crossword:

			d.		b.			c.	
a.	A	D	D	I	C	T	I	O	N



viii. Write down the reasons, effects and remedial measures taken for any *one* disaster seen or heard by you.

Q.4. Answer the following questions (any one):

[5]

- i. What is biodiversity? Write any *four* steps to conserve biodiversity.
- ii. What is stem cell? Write any *four* uses of stem cells.

Target Publications