

# BOARD QUESTION PAPER: MARCH 2022

## Science and Technology Part - 2

Time: 2 Hours

Max Marks: 40

- Note:**
- i. All questions are compulsory.
  - ii. Use of a calculator is not allowed.
  - iii. The numbers to the right of the questions indicate full marks.
  - iv. In case of MCQs (Q. No. 1(A)) only the first attempt will be evaluated and will be given credit.
  - v. For each MCQ, the correct alternative (A), (B), (C), (D) with subquestion number is to be written as an answer.  
For Eg: (i) (A), (ii) (B), (iii) (C)
  - vi. Scientifically correct, labelled diagrams should be drawn wherever necessary.

**Q.1. (A) Write the correct alternative:**

[5]

- i. Bones contain \_\_\_\_\_ amino acids.  
(A) Melanin (B) Haemoglobin  
(C) Ossein (D) Insulin
- ii. Giant squirrel is an example of \_\_\_\_\_ threatened species.  
(A) Endangered (B) Rare  
(C) Vulnerable (D) Indeterminate
- iii. Human being belongs to \_\_\_\_\_ class.  
(A) Mammalia (B) Amphibia  
(C) Reptilia (D) Cyclostomata
- iv. Organs like \_\_\_\_\_ can be donated after death.  
(A) Skin (B) Heart  
(C) Lungs (D) Bones
- v. Volcano is a \_\_\_\_\_ disaster.  
(A) Social (B) Political  
(C) Biological (D) Geological

**(B) Answer the following:**

[5]

- i. Find the odd one out:  
Earthquake, Flooding, Tsunami, War
- ii. State true or false:  
Oxidation of proteins is carried out in aerobic respiration.
- iii. Complete the correlation:  
Western ghat : Asiatic lion : : Sunderban sanctuary : \_\_\_\_\_
- iv. Which type of fuel is used in thermal power plant?
- v. Identify the picture and name it.



**Q.2. (A) Give scientific reasons (any two):**

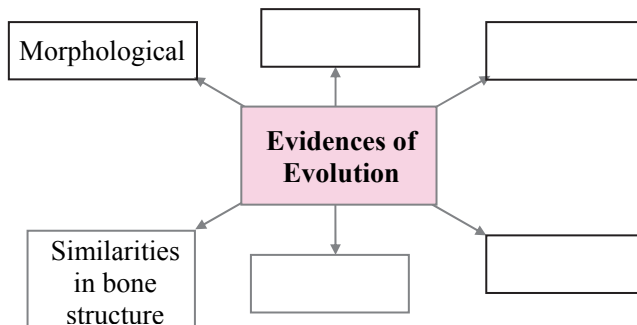
[4]

- i. Cell division is one of the important properties of cell and organisms.
- ii. Cockroach belongs to phylum Arthropoda.
- iii. Power generation plant based on natural gas is eco-friendly.

**(B) Answer the following (any three):**

[6]

- i. Complete the following diagram:



- ii. What do we learn from the story of Jadav Molai Payeng?
- iii. Distinguish between sexual reproduction and asexual reproduction. (*two points*)
- iv. Define genetically modified crops and give any *two* examples.
- v. What are vitamins? Write *two* types of vitamins.

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

[15]

- i. Explain the meanings of the following symbols:

(1)



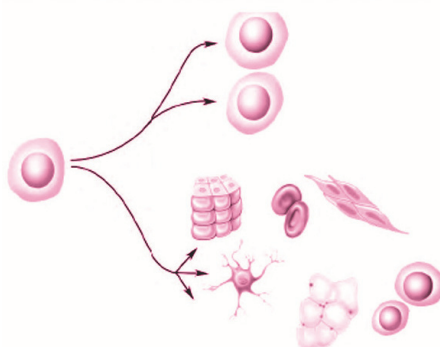
(2)



(3)

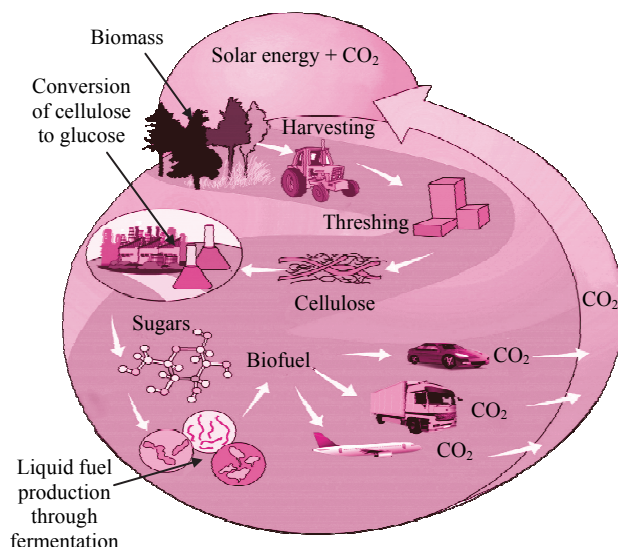


- ii. Write any *three* characteristics of class reptilia.
- iii.
  - (1) Which substance is used to produce cheese?
  - (2) Which enzyme was used earlier for cheese production?
  - (3) Which enzyme is used to produce vegetarian cheese?
- iv.
  - (1) Which process is shown in the given diagram?
  - (2) What is the importance of this process?
  - (3) Which organs can be transplanted by this process?



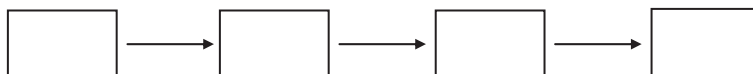
- v. What is meant by disaster? Write any *two* examples of each natural and man-made disaster.
- vi. Write the objections raised against Darwin's theory of natural selection.

vii.



- (1) Which process is shown in the above given picture?
- (2) Give *two* examples for liquid fuels and solid fuels obtained by this process.

vi. (1) Complete the stages in electric generator using wind energy.



- (2) Write limitations in an electric generator using wind energy.

**Q.4. Answer any *one* of the following:****[5]**

- i.
  - a. Sketch and label the essential and accessory whorls of flower.
  - b. What is pollination?
  - c. Give any *two* examples of agents of pollination.
- ii. What will you do?
  - (1) You are spending more time on internet.
  - (2) Child of your neighbour is addicted to tobacco chewing.
  - (3) Your sister has become incommunicative.
  - (4) You have to use free space around your home for good purpose.
  - (5) Your brother studying in XII has developed the stress.