

Maharashtra State Board
Class X Science and Technology Part-II
Question Paper Set-1

TIME: 2 HRS

Instructions:

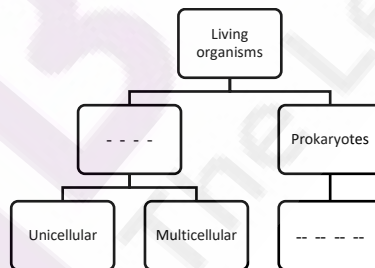
MARKS: 40

1. All questions are compulsory.
2. Sketch well labelled correct diagram wherever necessary.
3. Solve each main question on separate page.
4. Figures to the right indicate 'marks'.
5. Only first attempt will be evaluated for each multiple choice question (Que. 1 B).
6. Answer to each multiple choice question should be written with correct option.
Ex. i. a) -----, ii. C) -----.

Que. 1 A) Attempt the following.

5.

- i. Skin : Keratin :: Blood :
- ii. Rewrite the food-chain given below with correct sequence.
- iii. Grasshopper - Snake - Paddy field - Eagle - Frog
- iv. IT Act 2000 is to control the
- v. Mention any one benefit of biotechnology to the agriculture.
- vi. Complete the following flow-chart.



Que. 1. B) Write the correct option from given multiple choices.

5

- i. What should be done if the gas cylinder at your home catches fire?
 - a) Water should be sprinkled.
 - b) Sand, soil should be put at it.
 - c) Cylinder should be covered with wet blanket.
 - d) One should run away.

ii. In which of the following industries, microbial enzymes are not used?

- a) Glass industry.
- b) Cheese industry
- c) Tanning industry.
- d) Paper industry.

- iii. Which of the following is not an unisexual flower?
 a) Coconut b) Papaya c) Gulmohor d) Maize
- iv. Which of the following is used in solar cooker to harvest the solar energy?
 a) Solar panels b) Silicon cell c) Mirrors d) Glass lid
- v. Which of the following is first example of class *Homo sapiens*?
 a) Neanderthal b) Dryopithecus
 c) Cro Magnon d) Ramapithecus

Que. 2. Attempt the following (Any five) (2 marks each)

1. "Solving the problem of pollution is an effective way of environmental management"

Justify the statement.

2. Characters of a phylum are given below. Read those carefully and answer the questions.

- a. Spines of calcium carbonate are present on the body.
 b. These animals are exclusively marine.
 c. They perform the locomotion with the help of tube feet.
 d. Their skeleton is made up of calcareous plates or spicules.

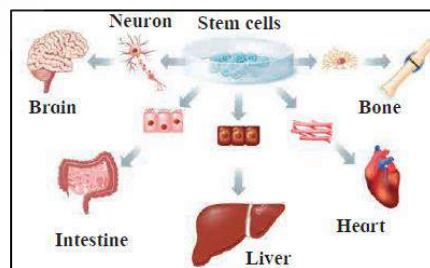
i. Animals of which phylum show the above characters?

ii. Give an example from that phylum.

iii. These animals can be classified with the help of which criteria of new system of animals classification?

3. i. Which therapy is shown in the picture?

ii. Which will be possible benefits of this therapy in organ transplantation?



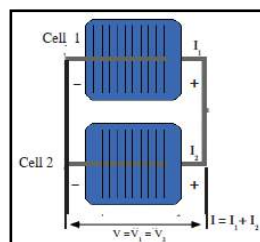
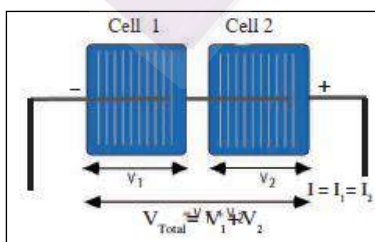
4. "Biotechnology is not only beneficial but it has some harmful effects too." Express your opinion about this statement.

5. Which aspects will you check for pre-disaster management in your school?

6. Observe the connections of cells shown in the following images.

i. Which connection will give maximum potential difference?

ii. Give one advantage and one disadvantage of this energy.



7. What do these symbols indicate? Explain our opinion about those symbols.



(A)



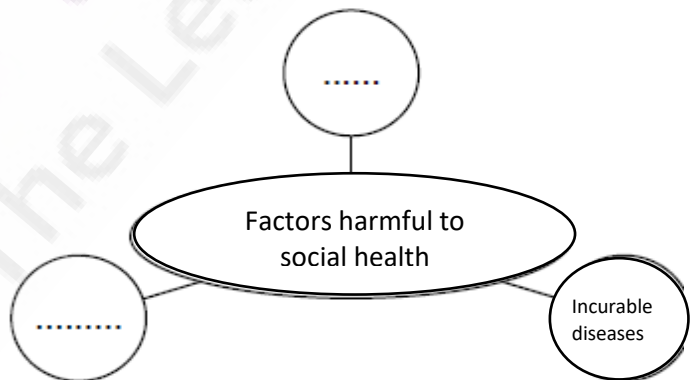
(B)

Que. 3. Attempt the following. (Any five)

15.

1. What do we call the degenerated or partially developed useless organs in living organisms? Enlist such organs in human body? How the same organs are useful in other animals?
2. "A couple shall have a male child or female child totally depends upon husband" Prove truthfulness of this statement with scientific reason.
3. Read the information given below and solve the questions based on it.
Electric energy is produced in various ways like hydroelectric, wind power, Solar energy, bio-fuel, etc. These energy sources are inexhaustible, sustainable. Besides, it does not cause any environmental problem.
 - i. Above information is about which type of energy?
 - ii. Whether the fossil fuel is an example of this energy?
 - iii. Draw the flow chart of production of electric energy.

4. Track the changes in methods of animal classification. How the methods of animal classification changed over the time?
5. Complete the following concept-diagram using factors harming the social health and based on it, answer the following questions.



- i. Tobacco products can be included in which of those factors?
- ii. How the tobacco products are harming the social health?

6. i. Which mental illness is shown in the picture given below?
ii. Which social message would you like to give through it?

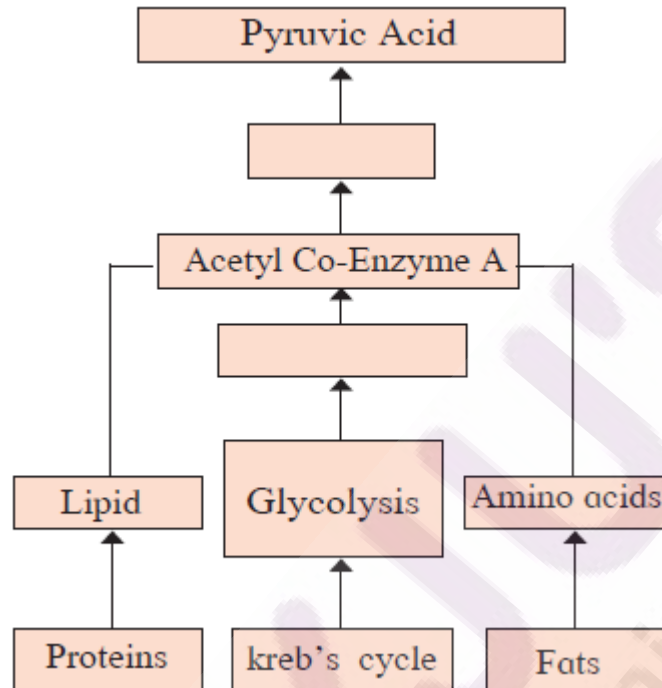


7. Explain in brief the sensitive issues of general public about disaster?

8. Que. 4. Attempt following. (Any one)

5.

- i. Redraw the flow-chart with corrections. Explain in brief the process of obtaining energy through oxidation of carbohydrates, lipids & proteins.



- ii. A) Lack of management of which factor is shown in the picture?
B) How can that factor be managed with the help of microbes?
C) How the oil spills in oceans are cleared?

