

BOARD QUESTION PAPER: July 2019

Science and Technology Part - 2

Time: 2 Hours

Total Marks: 40

Note:

- i. Solve the questions in sequence.
- ii. Draw diagrams wherever necessary.

1. (A) Solve the following questions: [5]
i. Match the columns: (2)

	Column 'A'		Column 'B'
a.	Haemoglobin	1.	Skin
b.	Ossein	2.	Blood
		3.	Bones

- ii. Find odd one out: (1)
Diabetes, Anaemia, Leukemia, Thalassemia
- iii. Write the correct co-relation: (1)
Transverse Binary Fission : *Paramecium* :: Longitudinal Binary Fission :
- iv. Who am I? (1)
I have suckers. I am blood sucking ectoparasite and my body is segmented.

- (B) Choose the correct alternative and rewrite the sentences: [5]

- i. Calcareous spines are present on the body of _____ animal. (1)
(A) Fish (B) Snail
(C) Sponge (D) Star fish
- ii. _____ beverage is obtained by fermentation of apple juice. (1)
(A) Cider (B) Wine
(C) Coffee (D) Cocoa
- iii. _____ is man-made disaster. (1)
(A) Earthquake (B) Flood
(C) Leakage of poisonous gas (D) Meteorite
- iv. _____ microbes provide organic manure to the paddy fields. (1)
(A) Azolla (B) Anabaena
(C) Azotobacter (D) Acetobacter
- v. The length of a sperm is about _____ micrometers. (1)
(A) 400 (B) 5
(C) 60 (D) 600

2. Answer the following questions (any five): [10]

- i. Hydroelectric energy, solar energy and wind energy are called renewable energies. Why? (2)
- ii. Complete the following table: (2)

	Plant/Microbes	Function
1.	<i>Pteris vitata</i>	-----
2.	<i>Pseudomonas</i>	-----
3.	-----	Absorption of uranium and arsenic
4.	-----	Absorption of radiations of nuclear waste

- iii. Define vestigial organs. Write any two names of vestigial organs in human body. (2)
- iv. Despite of various diagnostic tests, a couple could not have a child. In this situation, which remedies will you suggest? (2)
- v. Write any four harmful effects of consumption of alcoholic drinks on human body. (2)
- vi. Complete the following table: (2)

Source	Microbe	Amino Acid
Sugar molasses and salt	-----	Citric acid
-----	<i>Lactobacillus delbrueckii</i>	-----
Corn steep liquor	<i>Aspergillus itaconius</i>	-----

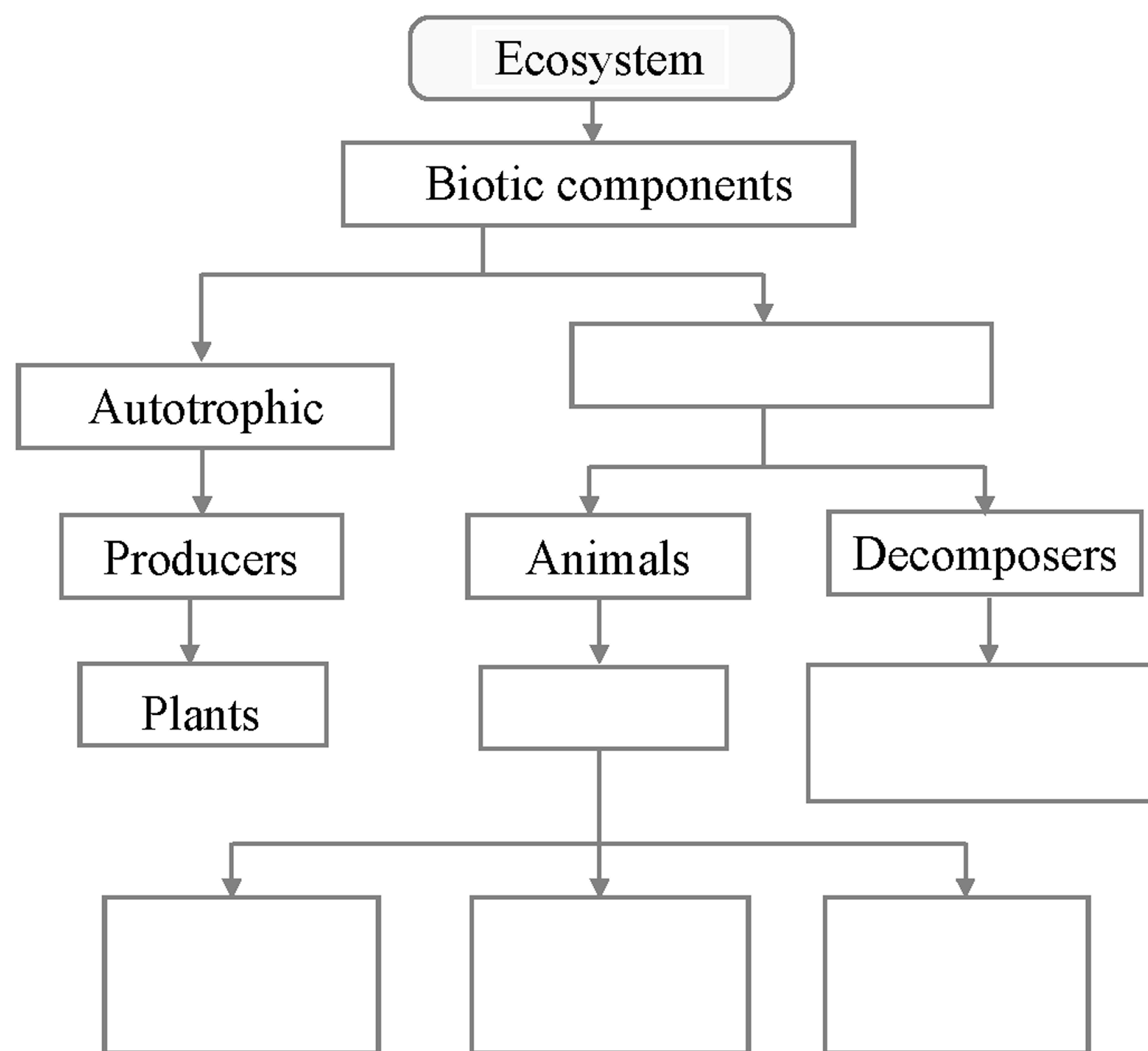
- vii. First aid training is essential. Why? (2)

3. Answer the following questions (any five): [15]

- i. What will you do? Why? (3)
 - a. Child of your neighbour is addicted to tobacco chewing?
 - b. Your friend has developed the hobby of snapping selfies.
 - c. Your sister has become incommunicable. She prefers to remain alone.

- ii. a. Write main types of vitamins. (3)
- b. Name water soluble vitamins.
- c. Name fat soluble vitamins.

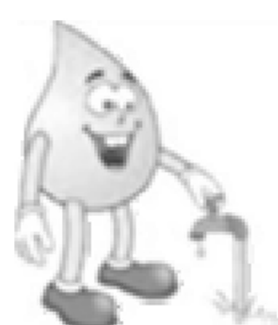
- iii. Complete the flow chart: (3)



- iv. a. What are the meaning of the following symbols? Write your role accordingly. (3)



A



B



C

- v. The building in which you are residing has caught fire on the ground floor. What necessary rescue steps will you take? (3)
- vi. Explain with suitable examples importance of anatomical evidences in evolution. (3)
- vii. Answer the following questions:
- a. In our country, there seems to be lack of awareness regarding reproductive health. Why? (1)
 - b. Write the symptoms of disease gonorrhoea. (1)
 - c. What precautions will you take maintain reproductive health? (1)

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

- i. Identify the class of given animals and write one characteristic of each animal:
- a. Kangaroo
 - b. Penguin
 - c. Crocodile
 - d. Frog
 - e. Sea-horse
- ii. Draw schematic of power plant based on natural gas and answer the following questions:
- i. At which place natural gas power plant is situated in Maharashtra?
 - ii. How is pollution reduced in natural gas based power plant?
 - iii. Give two examples of eco-friendly electricity process.