



Total No. of Printed Pages : 4

Question Booklet Sl. No.

5242860

GENERAL SCIENCE, Paper – II
(Biological Science)
 (English Version)

48

Max. Marks : 50

Time : 2 Hours

Instructions :

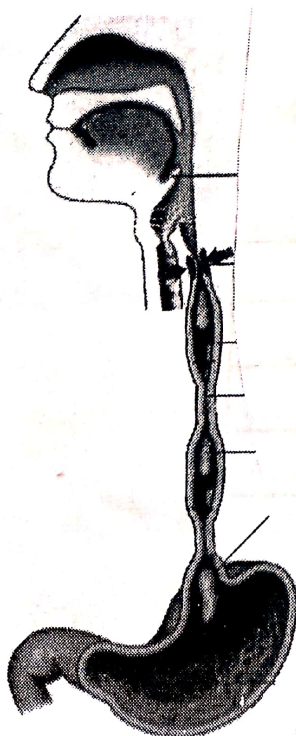
- 1) Question paper consists of 4 Sections and 17 questions.
- 2) Internal choice is available only for Q.No. 12 in Section – III and for all the questions in Section – IV.
- 3) In the duration of 2 hours, 15 minutes of time is allotted to read the question paper.
- 4) All answers shall be written in the answer booklet only.
- 5) Answer shall be written neatly and legibly.

SECTION – I

- Note :** 1) Answer all the questions.
 2) Each question carries 1 mark.

(6×1=6)

1. Which digestive juice is secreted in mouth ?
2. Identify the movement that occurs in this diagram.



D6

1



3. Mendel had chosen 7 pairs of contrasting characters in pea plants for his experiments. Identify which one of the following is not one among those characters :

- Colour of the flower
- Length of the pod
- Shape of the seed

4. Write a slogan to protect Kolleru lake.

5. Natural resources decrease rapidly. Guess a consequence of this condition.

6. Read the following table and answer the question given below.

| Sl.No. | Animal phylum | Excretory organ/Process |
|--------|---------------|--|
| 1 | Protozoa | Simple diffusion from the body surface |
| 2 | Arthropoda | Green glands, Malpighian tubules |

What is the process of excretion in the phylum protozoa ?

SECTION - II

(4×2=8)

Note : 1) Answer all the questions.

2) Each question carries 2 marks.

7. Write differences between bolus and chyme.

8. What questions will you ask to a nephrologist to keep your kidneys healthy ?

9. Read the following table.

| Sl.No. | Reproductive Method | Organism |
|--------|---------------------|------------------------|
| 1 | Fission | Paramoecium, Bacterium |
| 2 | Budding | Yeast |
| 3 | Fragmentation | Algae, Fungi |

Answer the following questions :

1) Which organisms reproduce by fragmentation ?

2) Give an example for an organism which performs fission.

10. Guess what would happen if villi are absent in the small intestine ?

(2)



SECTION – III

(5×4=20)

- Note :** 1) Answer **all** the questions.
2) **Each** question carries **4** marks.

11. Read the following table.

| Sl.No. | Phase of Mitosis | Changes occur |
|--------|------------------|--|
| 1 | Prophase | Chromosomes become visible, chromatids are formed, nuclear membrane disappears |
| 2 | Metaphase | Chromosomes move to spindle equator |
| 3 | Anaphase | Spindle fibres pull chromatids towards poles |
| 4 | Telophase | Nucleus divides into two, division of cytoplasm starts |

Answer the following questions now.

- 1) In which phase of Mitosis, chromosomes become distinctly visible ?
 - 2) Write a change that you observed during Metaphase.
 - 3) In which phase, does nucleus divide ?
 - 4) Which structures do pull the chromatids towards poles in Anaphase ?
12. Draw **any one** of the following diagrams with labelling.
- A) Internal structure of flower.
 - B) Excretory system in man.
13. Write the differences between sensory (afferent) nerves and motor (efferent) nerves.
14. Why should we conserve forests ?
15. Suggest some methods to prevent soil pollution in view of avoiding pesticides.

SECTION – IV

(2×8=16)

- Note :** 1) Answer **all** the questions.
2) **Each** question carries **8** marks.
3) **Each** question has an **internal** choice.

16. Explain the way how plants get water by osmosis through root hair ?

OR

How does sex determination happen in humans ?

(3)

P.T.O.



17. What experiment do you conduct to prove that carbondioxide is required for photosynthesis ?

OR

Observe the given experiment and answer the questions.



- 1) What is the aim of the experiment ?
- 2) What are materials required to conduct this experiment ?
- 3) Write a precaution to get a correct result in this experiment.
- 4) What observation do you make in this experiment ?

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