

# S.S.C. PUBLIC EXAMINATIONS - 2024

## GENERAL SCIENCE - PAPER-II (Biological Science) MODEL PAPER

**TIME : 2 hrs**

**(English Version)**

**MAX. Marks : 50**

**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) Answers shall be written neatly and legibly.

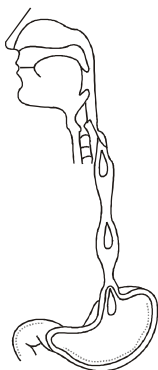
**SECTION - I**

**6 × 1 = 6 M**

**Note :** 1) Answer **ALL** the questions.

2) Each question carries 1 mark.

1. Which digestive juice does not contain any enzymes ?
2. Identify the movement in the given diagram :



3. **In Mendel's mono-hybrid crossing the phenotypic ratio is :**

A) 3 : 1

B) 1 : 2 : 1

C) 9 : 3 : 3 : 1

4. Suggest an eco-friendly method to increase crop yield.

5.

Sl.No.	Secondary Metabolite	Example	Use
1	Tannin	Acacia	Tanning of skins
2	Resin	Pinus	Varnish preparation

Which secondary metabolite is used in varnish preparation ?

6. What will happen if fossil fuels are completely exhausted on the earth ? Guess.

## SECTION - II

**4 × 2 = 8 M**

**Note :** 1) Answer **ALL** the questions.

2) Each question carries 2 mark.

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7. Write differences between bolus and chyme.
8. What are the consequences if the kidneys do not function properly ?
9. **Study the following table :**

Sl.No.	Plant parts involve in vegetative propagation	Examples
1	Leaf	Bryophyllum
2	Root	Radish, Carrot

Now answer the following questions :

- a) Give an example for a plant that propagates vegetatively by root.
  - b) Which part of the plant body involve in vegetative propagation in Bryophyllum?
10. Ask two questions to a dentist to know the functions of teeth in man.

## SECTION - III

**5 × 4 = 20 M**

**Note :** 1) Answer **ALL** the questions.

2) Each question carries 4 marks.

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11. Write the differences between Axon and Dendrite.
12. Draw one of the following diagrams and label it.

(A) Internal Structure of a flower.

**(OR)**

(B) Nephron structure

13. Study the following table :

Sl.No.	Phase of Mitosis	Activities / Changes Occur
1.	Prophase	Chromosomes are formed.
2.	Metaphase	Chromosomes reach the metaphasic plate.
3.	Anaphase	Chromatids are pulled towards poles.
4.	Telophase	Two cells are formed.

Now answer the following questions :

- 1) In which phase a plate like structure is formed ?
  - 2) What happens in the last phase ?
  - 3) What is the first phase of mitosis ?
  - 4) What is pulled towards poles in Anaphase ?
14. What is bio-remediation ? How does it help us ?
15. Write slogans on conservation of bio-diversity.

#### SECTION - IV

**2 × 8 = 16**

**Note :** 1) Answer **ALL** the questions.

- 2) Each question carries 8 marks.
- 3) Each question has an internal choice.

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16. A) Explain how do plants take water through root hairs by osmosis.

(or)

B) Explain the process of sex determination in man.

17. A) What experiment do you conduct to know about anaerobic respiration ?

(or)

B) Explain the experiment that confirms the presence of starch in leaves.

## BLUE PRINT

	<b>AS<sub>1</sub></b> <b>(6Q)</b>	<b>AS<sub>2</sub></b> <b>(3Q)</b>	<b>AS<sub>3</sub></b> <b>(1Q)</b>	<b>AS<sub>4</sub></b> <b>(3Q)</b>	<b>AS<sub>5</sub></b> <b>(2Q)</b>	<b>AS<sub>6</sub></b> <b>(2Q)</b>	<b>Total</b> <b>(17 Q)</b>
1 M	2	1		1	1	1	6 M
2 M	1	2		1			8 M
4 M	2			1	1 + 1	1	20 M
8 M	1 + 1		1 + 1				16 M (2 internal choice)
	20 M	5 M	8 M	7 M	5 M	5 M	50 M
1 + 1 means internal choice							