

Class X — SA1 Model Question Paper
General Science Paper II — Biological Science (English Version)

SA1 syllabus covered

- Ch 5 Life Processes (nutrition, respiration, transportation, excretion)
- Ch 6 Control and Coordination
- Ch 7 How do Organisms Reproduce?
- Ch 8 Heredity
- Not included for SA1: Ch 13 Our Environment

Question paper pattern

Section	Type of question	No. of questions	Marks
I	Objective / very short answer	6 (Q 1–6)	$6 \times 1 = 6$
II	Short answer	4 (Q 7–10)	$4 \times 2 = 8$
III	Short answer — Q 12 (diagram) has internal choice	5 (Q 11–15)	$5 \times 4 = 20$
IV	Long answer — internal choice in both questions	2 (Q 16–17)	$2 \times 8 = 16$
	Total	17	50

Where each chapter is tested

Chapter	Paper 1 — question numbers	Paper 2 — question numbers
Life Processes	1, 2, 7, 8, 10, 11, 16(A), 16(B)	1, 2, 7, 9, 11, 12(A), 12(B)
Control and Coordination	3, 4, 12(A), 13, 17(A)	3, 5, 8, 13, 16(B)
How do Organisms Reproduce?	5, 9, 12(B), 14	4, 10, 14, 16(A), 17(A)
Heredity	6, 15, 17(B)	6, 15, 17(B)

Notes for teachers

- Pattern follows the BSEAP SSC 2025-26 model paper for General Science Paper II (2 hours including 15 minutes reading time, 50 marks, 17 questions).
- Section IV in both papers keeps one lab-activity question, as the board model paper does.
- Our Environment is left out because it falls outside the SA1 portion.

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 should be written in the answer booklet only.
5. Answers should be written neatly and legibly.

SECTION – I**6 × 1 = 6 M***Note: 1) Answer all the questions. 2) Each question carries 1 mark.*

1. Name the respiratory pigment present in human red blood cells.
2. The loss of water in the form of vapour from the aerial parts of a plant is called _____.
3. Which endocrine gland is called the 'master gland'?
4. Amoeba reproduces by
A) budding B) binary fission C) spore formation D) fragmentation
5. Write a slogan to encourage the use of iodised salt.
6. A pure tall pea plant (TT) is crossed with a pure dwarf pea plant (tt). What will be the nature of the F₁ plants?

SECTION – II**4 × 2 = 8 M***Note: 1) Answer all the questions. 2) Each question carries 2 marks.*

7. What are the raw materials needed for photosynthesis? From where does the plant get them?
8. Read the table and answer the questions.

Hormone	Endocrine gland	Function
Insulin	Pancreas	Regulates blood sugar level
Adrenaline	Adrenal gland	Prepares the body to face emergencies
Growth hormone	Pituitary gland	Regulates growth and development

- A) Which hormone is secreted in large amounts when we are frightened?
 - B) Lack of which hormone causes diabetes?
9. Why is it necessary to separate oxygenated and deoxygenated blood in mammals and birds?
 10. What is vegetative propagation? Write any two of its advantages.

SECTION – III**5 × 4 = 20 M***Note: 1) Answer all the questions. 2) Each question carries 4 marks. 3) There is an internal choice only in Q.No. 12.*

11. Explain the role of the stomach and the small intestine in the digestion of food in human beings.

12. Draw a neat labelled diagram of the following:

A) Human respiratory system

(OR)

B) Sectional view of the human heart

13. What is a reflex action? Explain the reflex arc with the help of an example.

14. What is the placenta? Explain how the developing embryo gets nourishment inside the mother's body.

15. Variations arise during reproduction. Why are variations important for the survival of a species? Explain with an example.

SECTION – IV

2 × 8 = 16 M

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

16. A) Explain the lab activity you followed to observe budding in yeast. Mention the materials, procedure and what you observed under the microscope.

(OR)

B) Describe an activity to show that the roots of a plant grow towards water (hydrotropism).

17. A) Describe the human female reproductive system with a neat labelled diagram.

(OR)

B) Explain Mendel's monohybrid cross with tall and dwarf pea plants. How did it help him to explain dominant and recessive traits?

* * *