Model Question Paper prepared by www.educationobserver.com

SUMMATIVE ASSESSMENT – TERM II, 2026–27

BIOLOGY (English Medium)

SET 1

Standard: IX **Time: 1½ Hours**

Total Score: 40

Instructions

- The first 15 minutes is cool-off time. Use it to read the questions and plan your answers.
- This question paper has 18 questions in Sections A, B, C and D.
- Questions 6, 10, 13, 16 and 18 have a choice. Answer only one of the options.
- Answer according to the score and time.

Section A

Answer all questions from 1 to 4. Each carries 1 score. **(4 × 1 = 4)**

1. **Statement:** Mature red blood cells of human beings have no nucleus. (1)

Reason: The absence of a nucleus gives more space for haemoglobin, so more oxygen can be carried.

a) Both the statement and the reason are true, and the reason explains the statement.

b) Both the statement and the reason are true, but the reason does not explain the statement.

c) The statement is true, but the reason is false.

d) The statement is false, but the reason is true.

2. Which of the following is the structural and functional unit of the kidney? (1)

a) Neuron b) Nephron c) Alveolus d) Villus

3. Match the joints with the places where they are found. (1)

Joint	Place
P. Ball and socket joint	i. Between the bones of the wrist
Q. Hinge joint	ii. Between the first two vertebrae of the neck
R. Pivot joint	iii. Shoulder
S. Gliding joint	iv. Knee

a) P – iii, Q – iv, R – ii, S – i b) P – iv, Q – iii, R – i, S – ii

c) P – iii, Q – ii, R – iv, S – i d) P – ii, Q – iv, R – iii, S – i

4. Read the statements about blood vessels. (1)

i. Arteries carry blood away from the heart.

ii. Veins have valves that prevent the backflow of blood.

iii. The pulmonary vein carries deoxygenated blood to the heart.

a) Only i is correct b) i and ii are correct

c) ii and iii are correct d) All are correct

Section B

Answer questions 5 to 11. Questions 6 and 10 have a choice. Each carries 2 scores. **(7 × 2 = 14)**

5. Root hairs absorb water from the soil.

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a) By which process does water enter the root hair cells? (1)

b) Plants often wilt when too much chemical fertiliser is added to the soil around them. Why? (1)

6 A. Plants lose a large amount of water through their leaves.

a) What is this process called? (1)

b) Write any two benefits of this process to the plant. (1)

OR

6 B. Xylem and phloem are the conducting tissues in plants. Write one function of each. (2)

7. The blood pressure of a 50-year-old man is recorded as 145/95 mm Hg.

a) What does the reading 145 indicate? (1)

b) Suggest two lifestyle changes that can help him control his blood pressure. (1)

8. Blood passes through the heart twice in one complete circuit of the body in human beings. Explain why this is called double circulation. (2)

9. Dialysis saves the lives of many patients.

a) In which condition does a patient need dialysis? (1)

b) Write the principle on which a dialysis machine works. (1)

10 A. Write any two differences between skeletal muscles and cardiac muscles. (2)

OR

10 B. Osteoporosis is common among elderly people.

a) What happens to the bones in this condition? (1)

b) Suggest one way to prevent it. (1)

11. Fishes excrete ammonia, human beings excrete urea and birds excrete uric acid.

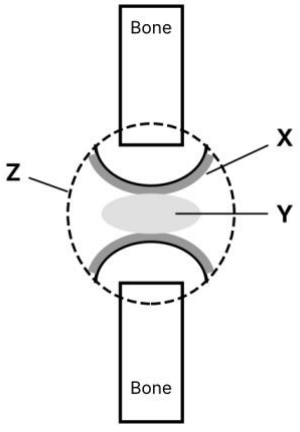
a) Why do fishes excrete nitrogenous waste mainly as ammonia? (1)

b) How does excreting uric acid help birds? (1)

Section C

Answer questions 12 to 17. Questions 13 and 16 have a choice. Each carries 3 scores. (6 × 3 = 18)

12. Observe the diagram of a synovial joint.



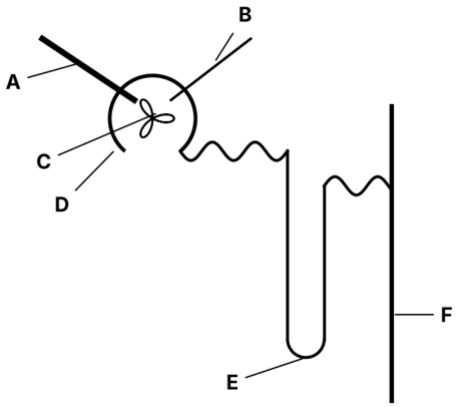
a) Identify the parts X and Y. (1)

b) What is the function of Y? (1)

c) Z is a strong band that holds the bones together. Name it. (1)

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13 A. Observe the diagram of a nephron.



a) Identify the parts C and D. (1)

b) The diameter of A is more than that of B. How does this help in the formation of urine? (1)

c) Name the part E. (1)

OR

13 B. Urine formation takes place in three stages.

a) Name the three stages. (1)

b) In which part of the nephron does ultrafiltration take place? (1)

c) Which substances are reabsorbed into the blood from the glomerular filtrate? (Any two) (1)

14. Complete the flow chart showing the path of blood through the heart and the lungs.

Right atrium → (a) ..... → Pulmonary artery → Lungs → (b) ..... → Left atrium → (c) ..... → Aorta

(3)

15. Lymph is called the "middle man" between blood and tissues.

a) How is lymph formed? (1)

b) Write two functions of lymph. (1)

c) What is the role of lymph nodes? (1)

16 A. Plants do not have special excretory organs. Write three ways in which plants get rid of their wastes. (3)

OR

16 B. Water reaches the top of tall trees through the xylem.

a) What is meant by root pressure? (1)

b) Explain how transpiration pull helps in the ascent of sap. (1)

c) Which property of water molecules keeps the water column unbroken? (1)

17. Bones are living tissues.

a) Name the bone cells that help in bone formation. (1)

b) Which minerals give hardness to bones? (1)

c) What is the function of the red bone marrow? (1)

Section D

Answer question 18 (A or B). It carries 4 scores. **(1 × 4 = 4)**

18 A. Athletes often feel pain and tiredness in their leg muscles after a long race.

a) Which type of respiration takes place in the muscles during heavy exercise? (1)

b) Name the substance that accumulates in the muscles and causes fatigue. (1)

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c) In which part of the cell does the Krebs cycle take place? (1)

d) Write the word equation of aerobic respiration. (1)

OR

18 B. Photosynthesis is the basis of all food chains.

a) Write the raw materials of photosynthesis. (1)

b) Where in the chloroplast does the light reaction take place? (1)

c) Name the by-product of photosynthesis. (1)

d) The glucose formed is stored as starch in plants. Why? (1)

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