

Annual Examination 2015-16
Science - Biology
Class - XI

Time allowed: 3 hours Maximum Marks: 70

General instructions:

- a) All questions are compulsory.
- b) There are 26 questions in total. Q. Nos. 1 to 5 carry 1 mark each, Q. nos. 6 to 10 carry 2 marks each, Q. nos. 11 to 22 carry 3 marks each, Q. no. 23 carry 4 marks and Q. nos. 24 to 26 OTBA questions carry 3, 3 and 4 respectively.
- c) The diagram should be neatly and properly drawn, wherever necessary.

Section A

1. Reticulate and parallel venation are the characteristic features of which kind of a leaf? Identify it.
2. Name the blood vessel that is associated with the transport of hormones from the hypothalamus to the anterior pituitary.
3. Name a reptile with a four chambered heart.
4. What constitutes the cambium ring.
5. Name the filaments which are used for muscle contraction.

Section B

6. Mention a protein having quaternary structure. Also name its polypeptide chain.
7. How do the osteoblast, osteocytes and osteoclasts differ from each other?
8. Which RNA has the shape of a clover leaf name it. Also mention its various region?
9. Why oxygen is considered as important in aerobic respiration.

Or

Difference between androecium of family Solaraceae and Liliaceae.

10. Deficiency of which element leads to the formation of yellowish edges appearance in leaves

Section C

11. How are photosynthesis and respiration related to each other?
12. What is cholesterol? What are the two forms of cholesterol?
13. Give four uses of auxins. **Or** What does growth curve represents?
14. Tabulate the differences between pinnate compound leaf and branch with simple leaves.
15. Differentiate between
 - (i) Tuberous roots and fasciculated fleshy roots
 - (ii) Fibrous root system and adventitious root system
16. Suggest some ways in which inhibitors might be important for plant survival.
17. How light affects germination in pea and onion seeds. Also mention one difference in the structure of chlorophyll – a and b. Also name the two photosynthetic pigments belonging to carotenoids.
18. Give some features by which a stem can be differentiated from a root.
19. Discuss respiratory pathway is an amphibolic pathway.
20. Why nephridia in earthworm that are basically similar in structure are classified into three types? Mention the names of each.
21. Differentiate between chloroplasts and chromoplasts.
22. Discuss functions of central neural system.

Section D

23. Ram is an athlete and a National champion. His elder brother Suresh is a XI class biology student. One day he went with his brother for training. During training he found that his brother can run more faster and longer than him. Next day in his school he asked his biology teacher about his brother running. His teacher replied, its due to stamina and muscle power.
 - (i) What is a muscle?
 - (ii) Define muscle fibre.
 - (iii) What is a functional unit of muscle?
 - (iv) What values are shown by Suresh?

Section E

24. OTBA
25. OTBA
26. OTBA
