

Model Question Paper
Class-XI (Regular) (Session : 2020-21)
Subject-Biology

Time Allowed : 3 hrs

Maximum Marks : 60

Note :

- (i) Question nos 1-5 are of 1 mark each.
- (ii) Questions nos 6-11 are of 1½ mark each.
- (iii) Questions nos 12-15 are of 2 mark each.
- (iv) Question nos 16-23 are 2½ mark each.
- (v) Question nos 24-25 are of 3 mark each.
- (vi) Question nos 26-28 are of 4 mark each.

Other instructions are same

- Questions are PISA based questions.

Section-A

1 Mark each

MCQ:

1. A group of organisms having similar traits of any rank is: 1
(a) Species (b) Taxon
(c) Genus (d) Order
2. Aestivation is:- 1
(a) Arrangement of flower (b) Arrangement of leaf
(c) Arrangement of sepals or petals (d) All the above
3. The organelle called 'suicidal bags' of cell:- 1
(a) Mitochondria (b) Ribosomes

- (c) Lysosomes (d) Golgi apparatus
4. Glycolysis occurs in:- 1
 (a) Mitochondria (b) Nucleus
 (c) Chloroplast (d) Cytoplasm
5. Main function of Henles loop is 1
 (a) Formation of urine (b) Passage of urine
 (c) Conservation of water (d) Filtration of blood

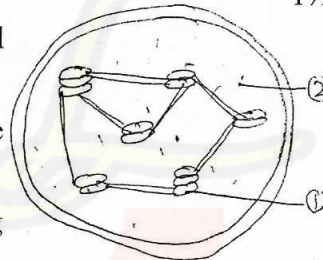
Section-B 1½ Mark each

6. List the main functions of Muscle tissue. 1½

Or

List the main functions of connective tissue.

7. What is vital capacity of lung? What are its significance. 1½
8. Examine the figure:- 1½
 (a) Is this structure present in animal cell or plant cell?
 (b) Can there be passed into the progeny?
 (c) Name the metabolic processes taking place in part (1) and (2).



9. Differentiate between Racemose and Cymose inflorescence. 1½

Or

Differentiate between epigynous and hypogynous flower.

10. Why mitosis is called equational division? 1½
11. Give functions of ribosomes. 1½
12. Why bryophytes are known as amphibians of plant kingdom? 2

Or

What is closed circulatory system? What is its significance.

13. Give four important general characters of Phylum-Arthropoda. 2

Or

Give four important general characters of Phylum-Coelenterata.

14. Define Alternation of generation? Explain the diplontic life cycle. 2
15. Draw well labelled diagram of Mitochondria. 2

Section-C

16. Write the Physiological effects of Gibberellins. 2½
17. Match the following:-
(a) Eosinophils (i) Coagulation
(b) RBC (ii) Universal Recipient
(c) AB group (iii) Resist Infections
(d) Platelets (iv) Gas transport
(e) Systole (v) Contraction of heart 2½
18. Give technical description, floral formula and floral diagram of Family solanaceae. 2½
19. Differentiate between Mitosis and Meiosis. 2½

Or

Differentiate between plant cell and animal cell.

20. What are Enzymes? Explain the nature of enzymatic action and properties. 2½
21. Give schematic representation of Glycolysis. 2½
22. Draw a well labelled diagram of internal structure of human heart.

Or

3

- Explain the mechanism of ultrafiltration. 2½
23. (a) Give schematic representation of C_3 cycle.
(b) Give one difference between Actinomorphic and zygomorphic symmetry in flower. 2½
24. What is aestivation of flower? Explain with diagram of its different types.
25. Explain the mechanism of muscle contraction in brief. 3

Section-D

26. Define Photophosphorylation. Explain non-cyclic photophosphorylation. How it differ from cyclic photophosphorylation? 1+2+1=4
27. (a) Explain the mechanism of transmission of nerve impulse through synaptic-deft.
(b) Give main function of Thyroxine Hormone. 3+1=4
- Or**
- (a) Explain the mechanism of Hormone action in humans.
(b) Give main role of diaphragm in breathing.
28. (a) What is Rubisco? Define Blackmann's law of limiting factors.
(b) If a green plant is placed in air frce of O_2 , would it live longer in light or darkness? Explain.
(c) Differentiate between apacarpous and syncarpous ovary. 2+1+1=4