

Exam -2011, Class : XI, Subject : Biology

Time: 3 Hr

M.M. 70

1. *All question are compulsory.*
2. *The question paper consists of four sections A,B,C and D. Section A contains 8 question of 1 mark each. Section B is of 10 questions of 2 marks each. Section C has 9 questions of 3 marks each where as Section D is of 3 question of 5 marks each.*
3. *There is no overall choice. However, an internal choice has been provided in one question of 2 marks, one question of 3 marks and one question of 5 marks weightage. A student has to attempt only one of the alternatives in such questions.*
4. *Wherever necessary, the diagrams drawn should be neat and properly labeled.*

[Section - A]

- Q. 1. What do you understand by the term taxonomic hierarchy?
- Q. 2. What are Halophiles? How Halophile have unique mode of energy intake.
- Q. 3. What are Dinoflagellates?
- Q. 4. What are the normal values of blood pressure in the artery?
- Q. 5. What are swarm cells? Where do you find them in slime moulds?
- Q. 6. Which is causing agent, and vector of the sleeping sickness?
- Q. 7. Name the enzyme secreted by the small intestine that activates the pancreatic proteases?
- Q. 8. Differentiate between N, 2N and N+ N conditions.

[Section - B]

- Q. 9. Which hormone is known as birth hormone and why?
- Q.10. What is Binomial nomenclature? Give two basic rule of binomial nomenclature?
- Q.11. Explain the role of heterocyst in Cynobacteria. Give the term formerly use for Actinomycetes.
- Q.12. What is heterothallism? Give one example of heterothallism.
- Q.13. Give the botanical name of a plant of family Solanaceae. Show the floral formulae and floral diagram of same plant.
- Q.14. Where does cerebrospinal fluid occur in our body? Mention any two of its functions.
- Q.15. Give three form of thalamus as regards of insertion of pistil and perianth or other floral organ and give example of each type.

- Q.16. Draw a well labeled diagram of digestive system of frog.
Q.17. Draw life cycle of Malarial parasite.

OR

- Draw a well labeled diagram of mitochondria.
Q.18. Identify the following animal, give zoological name and phylum of this animal.
Give two unique feature of same phylum.



[Section - C]

- Q.19. What is nerve impulse? Describe the conduction of nerve impulse in a non medullary and medullary nerve fiber.
- Q.20. What is meant by sympathetic co adrenal system? Give function of adrenal gland during emergency condition of a person.
- Q.21. Explain the formation of root nodule in a legume plant? Why is it pinkish in colour?
Give its advantage
- Q.22. Describe role of joints in body movement. Give example of two synovial joint with direction of bone movement in locomotion of a student.
- Q.23. What do you mean by term short day and long day plant. Why these term are misnomer.
- Q.24. How CO_2 transport in our body?
- Q.25. Briefly state the mechanism of urine formation in human kidney.

- Q.26. Draw the flow diagram of Calvin cycle.
- Q.27. Give unique feature of phylum Echinodermata and Cnidaria. What are the basis of the name Echinodermata and Cnidaria of these phyla? Give two example of each phylum.

OR

Give name of type of Placentation and Aestivation with example of each type:



[Section - D]

- Q.28. (a) How many molecules of ATP and how many molecules of NADPH are produced by one molecules of fructose 1,6 bi phosphate in glycolysis ?
- (b) Draw main steps of Krebs' cycle.

OR

What is ascent of sap? Give most acceptable theory of ascent of sap in higher plants.

- Q.29. What is Digestion? What are endopeptidases and exopeptidases. How protein digest in our body.

OR

- (a) What is cork cambium? Give the name of tissue form by cork cambium.
- (b) Draw T.S. of part of a typical monocot root.
- (c) What are fairy rings?
- Q.30. Describe following terms.
- (A) Annual rings in plants (B) Venation in plant leaf
- (C) Stigmata in cockroach (D) Cocoon in earthworm
- (E) Dry bone

OR

Where would the following structures be found in a cell and give one function of each?

- (A) Microtubules (D) Ribosome

- (B) Thylakoid
- (C) Oxisomes
- (E) ER
