

Half Yearly Examination-2014-15

Class - XI
Subject - Biology (044)

Time : 2 hrs.

M. M. : 35

Note :- Attempt all questions. Marks are indicated against each question.

General Instructions :-

- (i) Question numbers 1 to 3 are of 1 mark each, answer them in few words or one sentence each.
- (ii) Question numbers 4 to 6 are of 2 marks each, answer them in 20-30 words each.
- (iii) Question numbers 7 to 12 are of 3 marks each, answer them in 30-40 words each.
- (iv) Question numbers 13 to 14 are of 4 marks each, answer them in 80 words each.

- Q.1. What is Quiescent phase (Go) of cell cycle ? (1)
- Q.2. What type of modification is found in the - (1)
(a) stem of potato (b) roots in mangrove ($\frac{1}{2}+\frac{1}{2}$)
- Q.3. Name the group of animals which have the following characteristics-
(a) Water vascular system.
(b) Exoskeleton made up of chitin ($\frac{1}{2}+\frac{1}{2}$)
- Q.4. Give four important characteristics of prokaryotic cell ? (2)
- Q.5. Give the anatomical differences between monocot root and dicot root. (2)
- Q.6. Name the stage of cell cycle at which one of the following events occur : (2)
(a) Chromosomes are moved to spindle equator.
(b) Pairing between homologous chromosomes take place.
(c) Centromere split and chromatids separate.
(d) Crossing over between homologous chromosomes takes place.

OR

- Draw a diagram showing L.S of a monocotyledonous seed and label any four parts in it correctly.
- Q.7. How many types of nephridia are found in the earthworm based on their location ? What is the function of nephridia ? (3)

OR

- Draw a diagram showing alimentary canal of cockroach label any six parts in it correctly.
- Q.8. (a) Cell is the basic unit of life. Discuss in brief.
(b) Multicellular organisms have division of labour. Explain.
- Q.9. What is the significance of meiosis ? Distinguish between anaphase of mitosis and anaphase I (3)
- Q.10. Describe the functions of each one of the followings :- (3)
(a) Nucleus (b) Mitochondria (c) Centrosome

- Q.11. "All vertebrates are chordates but all chordates are not vertebrates". Justify the statement. What is the importance of air bladder in Pisces. (3)
- Q.12. Define the following terms :
(a) actinomorphic (b) Superior ovary (c) epiketalous stamens (3)
- Q.13. What is stomatal apparatus ? Explain the structure of stomata with a labelled diagram. Explain two important functions which are performed by stomata in plants. (4)
- Q.14. Differentiate between open circulatory system & closed circulatory system. Mention briefly about the circulatory system of earthworm. (4)

OR

What is placentation? Describe any three types of placentation found in flowering plants with the help of diagrams & give one example in each case.