ATOMIC ENERGY CENTRAL SCHOOL No 4 RAWATBHATA

Model Paper (Half Yearly Exam) 2015

Subject – Biology

Time: 3Hrs **Class – XI** **M.M. 70**

General Instruction:-

1) All questions are compulsory.
2) This question paper consists of four sections A, B, C and D. section 'A' consists of 8 question of one mark each. Section 'B' is of 10 questions of 2 marks each, section 'C' is of 9 questions of 3 marks each and section 'D' is of 5 marks each.
3) There is no overall choice. However an internal choice has been provided in one questions of 2 marks one question of 3 marks and all questions of 5 marks. Attempt only one choice in all such questions.
4) Wherever necessary, the diagrams drawn should be neat and properly labeled.

SECTION "A"

1. Define growth.
2. Give the example of class bivalve of Mollusca.
3. What do you mean by coencytic condition?
4. Who coin the term cell and in which it was published?
5. Write the pigment of Rhodophyceae.
6. Describe the amino acid with example.
7. Write the term for the body cavity, true body cavity develop from which germinal layer?
8. Segmentation in the body is first observed in which group (Phylum) of the organisms?

SECTION "B"

9. Define Taxonomy and Systematics.
10. Write the category of the following in which they belongs:
    Panthera, Solanaceae, Cancidae,Monera.
11. What is heterospory? Give two examples.
12. Write a short note on the economic importance of algae and gymnosperms.
13. Write the four features of chordates.
14. What are the reasons that you can think of for the arthropods to constitute the largest group of animal kingdom?
15. Give the brief account of viruses with respect to their structure and nature of genetic material. Also name two common viral diseases.
16. Write the characteristic features of Euglenoids?
17. Cell is a basic unit of life. Discuss in brief.
18. Describe the envelope of the prokaryotic cells and describe briefly.

    OR

    Describe the carbohydrate, write its types.

SECTION "C"

19. Describe peptide bonds and explain how it is form with suitable example.
20. Nucleus is called as director of cell, describe its structure and role as director.

21. Mention the ploidy of the following:
    Protonemal cell of moss; Primary endosperm nucleus in dicot; leaf cell of a moss; prothallus cell of a fern; ovum of a liverwort; zygote of a fern.
22. Describe the classification algae and write their pigments also.
23. (a) Plants are autotrophic. Can you think of some plants that are partially heterotrophic?
    (b) What is the nature of cell-walls in diatoms?
24. What do you mean by 'Fungi Imperfecti' describe features of this class.
25. Describe levels of organization, body plan and type of circulatory system of animals.
26. What is Key? Describe is characteristics.

OR

Write phylum, class, genus of wheat and human.

SECTION 'D'

27. Describe the structure of plasma-membrane with labeled diagram.

Or

How do neutral solutes move across the plasma membrane? Can the polar molecules also move across it in the same way? If not, then how are these transported across the membrane?

28. (a) Both lysosomes and vacuoles are endomembrane structures, yet they differ in term of function. Comment.
    (b) Write the name of Biomacromolecules present in acid soluble pool of cell.

OR

(a) Write characteristic features of any class of phylum vertebrata.
(b) Differentiate between: liverwort and moss, syngamy and triple fusion.

29. What do you mean by alternation of generations in life cycle in plant life? Describe the life cycle patterns with suitable examples.

OR

Who proposed the five kingdom classification? Write the name kingdoms and also write criteria for the classification and write general features of all the five kingdom.

30. Differentiate plant cell and anima cell with labeled ultra structure diagrams.

OR

Explain the following terms with suitable examples:
1.protonema 2.antheridum 3.archegonium 4. Sporophyll 5. Isogamy.