Excellence has No Limits

SACHDEVA
GLOBAL SCHOOL

CLASS - XI	BIOLOGY	HALF YEARLY	01-10-2013

Name:		MM - 70	TIME – 3 HRS

General Instructions:

(i) All questions are compulsory. There is no overall choice. However, an internal choice has been provided in Q. 24 and Q. 25.
(ii) Wherever necessary, the diagrams drawn should be neat and properly labelled.

1. Define Systematics. (1)
2. How do archaebacteria survive in extreme environmental conditions? (1)
3. What are imperfect fungi and why are they called so? (1)
4. Which stage of cell division is used to study the morphology of chromosome and why? (1)
5. Define pseudocoelomate. (1)
6. What is a polysome? (1)
7. Name the chemical which constitutes middle lamella in plant cells. (1)
8. How is a peptide bond formed? (1)
9. In the table given below, enter the correct taxonomic categories: (2)

	Genus	Family	Order	Phylum/Division
(i)	Man			
(ii)	Mango			

10. Distinguish between
    a. Coenzyme and Prosthetic Group. (2)
    b. Condrichthyes and Osteicthyes (2)
    c. Chlorophyceae and Phaeophyceae (2)
11. Distinguish between cytokinesis in an animal cell and a plant cell. Give diagrams to illustrate. (2)
12. What is a mesosome in a prokaryotic cell? Mention its functions (any two). (2)
13. How is a key useful in identifying and classifying organisms? (2)
14. Distinguish between syngamy and triple fusion. (2)
15. Give any four points of difference between chordates and non-chordates. (2)

16. Explain the significance of G_0 phase of cell cycle. (2)
17. Name three groups of plants which bear archegonia. Briefly describe the life cycle of any one of them. (3)
18. Only two classes under Phylum Vertebrata are homoiothermous. Describe the characteristic features of any one of them. (3)
19. Describe any one double- membrane organelle of the eukaryotic cell. (3)
20. Differentiate between:
    a. Nucleoside and nucleotide (3)
    b. Essential amino acids and Non-essential amino acids (3)
    c. Secondary and tertiary structure of proteins (3)
21. Discuss the three types of plant life cycles on the basis of alternation of generation. (3)
22. Enlist the characteristics of prokaryotic cells. (3)
23. Describe the fluid mosaic model of the plasma membrane. Draw a well-labelled diagram to illustrate your answer. (3)
24. (a) Diagrammatically represent the Activation energy change in an enzyme-catalysed reaction. Explain it. (3)
    (b) Differentiate between ligases and lyases. (2)

OR

(a) Explain the effect of concentration of a substrate on the rate of a chemical reaction. (3)
(b) Discuss any four classes of enzymes depending on the type of reactions they catalyse. (2)

25. Why is mitosis called reductional division? What is the significance of meiosis? Describe the terms "bivalent" and "chiasmata". (5)

OR

Discuss (along with diagram) the different types of transport mechanisms across a semi-permeable biomembrane. (5)

26. Describe in detail (along with diagrams) the events beginning at Prophase I and ending at Telophase I in a meiotic division. (5)