GULF SAHODAYA EXAMINATION (SAUDI CHAPTER)

2011-2012

BIOLOGY-CLASS XI

Time: 3 Hr

Max. Marks: 70

SET-A

General Instruction:

I. All questions are compulsory.

II. The question paper consists of four sections A, B, C, and D. Section A contains 8 questions of 1 mark each, Section B is of 10 questions of 2 marks each, Section C has 9 questions of 3 marks each whereas Section D is of 3 questions of 5 marks each.

III. There is no overall choice. However, an internal choice has been provided in one question of 2 marks, one question of 3 marks, and all the three questions of 5 marks weightage. A student has to attempt only one of the alternatives in such questions.

IV. Wherever necessary, the diagrams drawn should be neat and properly labeled.

SECTION-A

1. Name a non-membrane bound organelle found in both prokaryotic and eukaryotic cells.  
   1

2. Write the correct sequence of taxonomical categories.
   Class, Species, Family, Genus, Order  
   1

3. What is plasmolysis?  
   1

4. Mention the two events occurred in animal cells during S phase of cell cycle.  
   1

5. Label A and B in the given figure.

6. Pick out the phylum that includes the pseudocoelomate animals.
   Platyhelminthes, Annelida, Porifera, Aschelminthes  
   1
7. Name the enzyme which is not a protein.

8. What type of epithelium is found in the walls of the blood vessels and alveoli of lungs?

SECTION-B

9. What are viroids? Who discovered them? Name the disease caused by a viroid in potato.

10. What is geometrical growth? Give its graphical representation.

11. What is hydroponics? Mention its two uses.

12. What is the difference between Heart wood and Sap wood?
   OR
   What is the difference between spring wood and autumn wood?

13. Describe the process by which lactic acid accumulates in the muscle cells during vigorous exercise. Give its equation and name the enzyme.

14. Differentiate between racemose and cymose type of inflorescence.

15. Label A, B, C, and D in the given diagram.

16. What are nucleosides and nucleotides? Give one example of each.

17. What are joints? Where are these joints located? (a) Pivot joint (b) Saddle joint

18. What are mesosomes? State any two of its functions.
SECTION C

19. State the location and function of different types of primary meristems. 3

20. Describe the three stages of Calvin cycle highlighting the role of Rubisco. 3

21. Mention any three characteristics which make the Pteridophytes evolutionarily more advance though it shows certain primitive characters. 3

22. Describe the mechanism of normal breathing in humans. 3

23. Mention the differences between passive and active transportation across the cell membrane. 3

24. What is reflex action and reflex arc? Describe it with an example. 3

25. What is aestivation? Describe twisted and imbricate aestivation with one example each. OR
    What is placentation? Describe the axile and free central placentation with one example each. 3

26. How is Anaphase I of meiosis I differ from Anaphase of mitosis? 3

27. Name the endocrine gland that secretes LH and FSH. State the functions of LH and FSH in male and female humans. 3

SECTION D

28. Give the schematic representation of Glycolysis indicating the steps at which utilization and synthesis of ATP/NADH+H+ takes place. OR
    (a) Describe the light harvesting complexes within photosystems I and II.
    (b) Give the schematic representation of non-cyclic photophosphorylation during light reaction. 5

29. Draw a neat and labeled diagram showing parts of human eye. OR
    Draw a neat and labeled diagram of human ear. 5

30. (a) What are enzymes? Describe the catalytic cycle of enzyme action.
    (b) Explain competitive inhibition of an enzyme action with an example. OR
    What are proteins? Describe the primary, secondary, tertiary and quaternary structure of protein. 5