

GULF SAHODAYA EXAMINATION (SAUDI CHAPTER)

2011-2012

BIOLOGY-CLASS XI

Time: 3 Hr

Max. Marks: 70

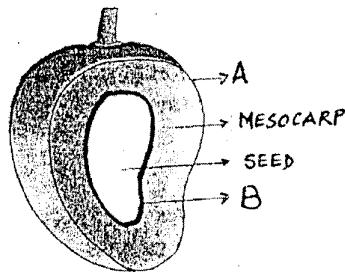
SET-A

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. 1

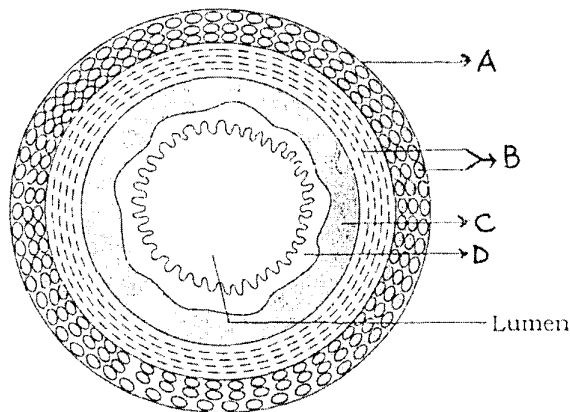


6. Pick out the phylum that includes the pseudocoelomate animals.
Platyhelminthes, Annelida, Porifera, Aschelminthes 1

7. Name the enzyme which is not a protein. 1
8. What type of epithelium is found in the walls of the blood vessels and alveoli of lungs? 1

SECTION-B

9. What are viroids? Who discovered them? Name the disease caused by a viroid in potato. 2
10. What is geometrical growth? Give its graphical representation. 2
11. What is hydroponics? Mention its two uses. 2
12. What is the difference between Heart wood and Sap wood?
OR
What is the difference between spring wood and autumn wood? 2
13. Describe the process by which lactic acid accumulates in the muscle cells during vigorous exercise. Give its equation and name the enzyme. 2
14. Differentiate between racemose and cymose type of inflorescence. 2
15. Label A, B, C, and D in the given diagram. 2



16. What are nucleosides and nucleotides? Give one example of each. 2
17. What are joints? Where are these joints located? (a) Pivot joint (b) Saddle joint 2
18. What are mesosomes? State any two of its functions. 2

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. 3
- 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. 5
- 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. 5
- OR
- Draw a neat and labeled diagram of human ear.
30. (a) What are enzymes? Describe the catalytic cycle of enzyme action.
(b) Explain competitive inhibition of an enzyme action with an example. 5
- OR
- What are proteins? Describe the primary, secondary, tertiary and quaternary structure of protein. 5