

GULF SAHODAYA (SAUDI CHAPTER ) EXAMINATION

SESSION 2013-2014

GRADE -XI

TIME -3 HOURS and 30 minutes

SUBJECT BIOLOGY( CODE 44 )

MARKS-60 + 10 for OTB

SET -B

General Instructions -

1. All questions are compulsory.
2. This question paper consists of four Sections A, B, C and D and OTBA  
Section -A contains 8 questions of one mark each, Section -B contains 9 questions of two marks each Section -C contains 8 questions of three marks each, there is one value based question of 3 marks in this category.  
Section D contains 2 questions of five marks each
3. There is no overall choice. However, an internal choice has been provided in one question of two marks, one question of three marks and two questions of 5 marks. Attempt only one of the alternatives in such questions.
4. Wherever necessary, the diagrams drawn should be neat and properly labelled.
5. OTBA has 2 questions of five marks each.

SECTION-A

1. Pick out the ovarian hormones from the list given below. ½+1/2.  
Secretin, progesteron, glucagon, estrogen, cortisol.
2. Explain the term photoperiodism in plants? What is the role of the hormones in it? ½+1/2
3. Follow the binomial nomenclature rule and write the scientific name for a)Housefly b) wheat ½+1/2
4. Name the protozoan group to which Plasmodium belongs. Write two characteristics of the group? 1/2+1/2
5. Identify the process exhibited by the given picture and define it ? 1/2+1/2



Fill in the blanks -

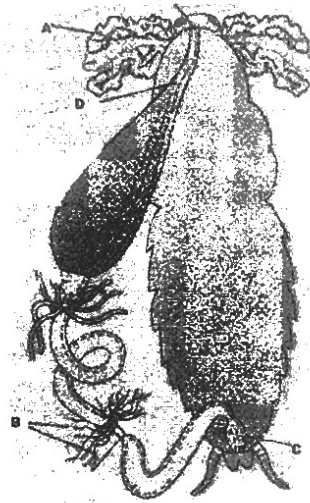
Dorsal portion of the midbrain consists of four round swellings called \_\_\_\_\_ 1

Differentiate between homo polysaccharides and complex polysaccharides ? 1

8. Identify the eukaryotic cell organelle on the basis of the given clues and write its function? 1/2+1/2
- I am a network or reticulum of the tiny tubular structure .
  - Intracellular space is divided into extra luminal and intra luminal space because of me .
  - My counterpart has ribosomes attached to the surface while I don't have ribosomes .

**SECTION B**

9. Life cycle of the mosses have gametophytic stage as the predominant stage. Explain in detail the two gametophytic stages that are being referred to in the question? 2
10. What are bulliform cells ?explain their significance? 2
11. Identify the diagram below and label the parts a,b,c and d ? 2



12. Explain the competitive inhibition with reference to functioning of the enzymes? 2
13. Light and concentration of the carbon- di- oxide play an important role in the process of the photosynthesis. Explain ? 2
14. What is respiratory quotient ? what is the respiratory quotient for tripalmitin? 2
15. Expand and differentiate between EC and IC with reference to the respiratory capacities? 2

**OR**

- 15' Explain the role of the juxta glomerular apparatus in the regulation of the kidney function? 2
16. Identify the phylum of kingdom animalia on the basis of characteristic features mentioned below? 2
- Unsegmented body with head ,muscular foot and visceral hump
  - There most distinctive feature is the presence of water vascular system
  - They have hollow nerve cord and paired pharyngeal gill slits
  - Body is covered with scales and scutes and they have three chambered heart

17. Explain the symbiotic nitrogen fixation? 2

**SECTION C**

18. Explain the term placentation in plants? Elaborate its all different types? 3

19. What is inflorescence? Explain its different types? What is the significance of the inflorescence?

Or

Classify the protein on the basis of their structure? 3

20. Name and explain the stages of the cell cycle associated with the interphase? 3

21. Draw the schematic diagram of the Krebs's cycle? 3

22. Mr RSTV has a sedentary life style. On his regular medical checkup report he was diagnosed with high blood pressure and high cholesterol.

a) What values does he exhibit?

b) Explain the different heart sounds? 1+2

23. Explain the mechanism of the muscle contraction with the help of the diagram? 3

24. With the help of the diagram explain the structure of the nephron? 3

25. Fill in the blanks 3

Name of the digestive juice	Name of the enzyme	Substrate	Products
saliva	A	Starch	B
Pancreatic juice	C	Carbohydrate	D
Pancreatic juice	D	Nucleic acid	E

**SECTION-D**

26. a) Name the two scientists who postulated the cell theory? State the salient feature of the cell theory?

b) Explain the fluid mosaic model of the plasma membrane with the help of the diagram? 2+3

OR

26. a) Give the schematic diagram of the glycolysis?

b) Distinguish between aerobic and anaerobic respiration?

3+2

27. a) Differentiate between the cyclic and non-cyclic photophosphorylation? Draw schematic diagram for the cyclic and non-cyclic photophosphorylation?

b) State the law of the limiting factor? Name the scientist who applied it to the process of the photosynthesis?

3+2

OR

27. a) A unicellular organism underwent division to produce two cells which are morphologically and genetically similar to the parent? Identify which type of the division is involved and explain all the steps along with the diagram? 3

b) Explain the significance of the mitosis and meiosis? *Fig 1.10*

1+1

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