

219K'4

INTERNATIONAL INDIAN SCHOOL- DAMMAM

I TERMINAL EXAMINATION

2014-2015

XI BIOLOGY

Time- 3 Hours

Max. Marks-70

SET-A

General Instructions:

- I. All questions are compulsory.
- II. The question paper consists of four sections A, B, C, D&E. Section A contains 5 questions of 1 mark each, Section B is of 5 questions of 2 marks each, Section C has 12 questions of 3 marks each, and section D has one value-based question of 4 marks whereas Section E 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. What are prokaryotic cells? 1
2. Why the C_3 plants like tomato growing in green houses have higher yields? 1
3. What are chylomicrons? 1
4. What is tidal volume? What is the tidal volume for a healthy human in 1 minute? 1
5. Select an organism from the given list in which an open circulatory system is present.
Cockroach, Earthworm, Frog, Pigeon, Leech 1

SECTION-B

6. Mention any two significances of cell division meiosis. 2
7. Both cellulose and starch are polymers of glucose. Starch gives blue color with iodine but the cellulose does not give blue color with iodine. Give reason. 2
8. Give the schematic representation of cyclic photophosphorylation. 2
9. Mention any four advantages of having HCl in our stomach that is secreted after eating the food.

OR

Mention any four functions of Bile juice.

2



10. Discuss the role of Haemoglobin in the transportation of O₂ and CO₂. 2

SECTION-C

11. Draw a neat and labeled diagram of a Mitochondrion.

OR

Draw a neat labeled diagram of a Chloroplast. 3

12. Interphase of the cycle though called the resting phase is not a resting period of the cell.

Discuss and justify the statement. 3

13. What is meant by metabolism? Differentiate between anabolism and catabolism with one example each. 3

14. What are accessory photosynthetic pigments? How they are organized in the Grana? **Mention their two functions.** 3

15. Describe the role of pancreatic juice in the digestion of food in the small intestine. 3

16. What are the major transport mechanisms for CO₂? Explain. 3

17. Usually any wound stop bleeding within 3-7 minutes in humans. Explain the underlying mechanism why the blood stop flowing from the wound. 3

18. Differentiate between the passive and active transport of substances across the cell membrane. 3

19. Give the schematic diagram showing non-cyclic photophosphorylation occur in the plants during light-dependent reactions in the thylakoid membrane. 3

20. Describe the mechanism of inspiration and expiration during breathing. 3

21. Draw a neat and labeled diagram of the duct systems of liver, gall bladder and pancreas. 3

22. Describe how is both mechanical and chemical digestion of food occur in our mouth. 3

SECTION -D

23. Sameer while returning from his school saw a man suddenly fell down at the bus stop. With the help of some passerby he quickly takes the man to a nearby hospital. Doctors checked the man, administered some medicines took an ECG and later reported Sameer that the person is out of danger with normal ECG and asked Sameer to go home.
- a. What human values are depicted by Sameer?
- b. What is ECG? Draw a normal standard ECG. 4

SECTION –E

24. Describe the major events occur during the cell division mitosis.

OR

What are chromosomes? Describe the different types of chromosomes with the help of diagrams. 5

25. What are proteins? Describe the primary, secondary, tertiary and quaternary structure of proteins in the cell.

OR

What are enzymes? Describe how the enzymes regulate metabolic reactions and what some other substances are needed for enzyme action. 5

26. Draw a neat and labeled diagram of human respiratory system.

OR

Draw a neat and labeled diagram of human heart showing Purkinjee system responsible for heart beat. 5