

INTERNATIONAL INDIAN SCHOOL- DAMMAM

MODEL EXAMINATION

CLASS XI

BIOLOGY

SET: A

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Time allowed: 3 Hrs.

Maximum Marks:70

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General Instructions:

1. There are a total of 26 questions and five sections in the question paper. All questions are compulsory.
2. Section A contains question number 1 to 5, Very Short Type questions of one mark each.
3. Section B contains question number 6 to 10, Short Type questions of two marks each.
4. Section C contains question number 11 to 22, Very Short Type (II) questions of three marks each.
5. Section D contains question number 23 Value Based Question of four marks.
6. Section E contains question number 24 to 26, Long Answer Type questions of five marks each.
7. There is no overall choice in the question paper, however an internal choice is provided in one one question of two marks, one question of three marks and all three questions of five marks.

An examinee is to attempt any of the questions out of the two given in the question paper with the same question number.

8. Where ever necessary draw neat and labeled diagrams.

SECTION - A

1. Who introduced the five kingdom classification? 1
2. In some plant species roots come out of the ground and grow vertically upwards to get oxygen for respiration. What are such roots called? 1
3. What are mucus secreting cells called? 1
4. Expand RUBP. 1
5. Name the two photosynthetic pigments belonging to carotenoid and their functions. 1

SECTION – B

6. Differentiate between racemose and cymose inflorescence. 2
7. Write four main features of arthropoda.

Or

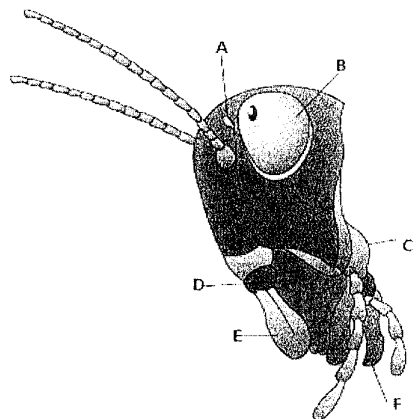
- What is heterospory? Briefly comment on its significance 2
8. Who proposed cell theory? Write three important points of cell theory. 2
9. Classify the chromosomes on the basis of centromere position. 2
10. Diagrammatically show a plasmolysed cell and a turgid cell. 2

SECTION – C

11. Cnidarians exhibit two basic body forms. What are they? How do they differ from each other? Give one example in each. 3
12. What do you understand by hypogynous, epigynous and perigynous flowers? Explain these terms by means of suitable diagrams.

Or

- Briefly describe three types of phyllotaxy with one example of each. 3
13. Label the marked parts in the diagram of head region of cockroach. 3



14. List the characteristics of i) Green algae ii) Brown algae iii) red algae 3
15. Describe events taking place during interphase. 3
16. Draw a well labeled diagram of Mitochondria. 3
17. Explain the transpirational pull model of water transport in plants. 3

18. Name the categories of plant hormones concerned with each of the following and describe one more function of each of the hormones:
- Inhibition of seed germination
 - Promote flowering
 - Causes apical dominance
19. Enlist any two conditions required for nitrogen fixation. Write the chemical equation of biological nitrogen fixation.
- Or**
- Describe Nitrogen cycle. Elaborate with the help of diagrams.
20. How does competitive inhibition of an enzyme occur? How such inhibition is useful in medicines?
21. Give the reason:
- Micturition is carried out by a reflex.
 - ADH helps in water elimination, making the urine hypotonic.
 - Henle's loop plays an important role in concentrating urine
22. Name the three types of leucocytes. Mention their functions of each.

SECTION – D

23. During the sports day in school Anirudh took part in 1000m race. In the middle of race he fell down and but he completed the race, he felt acute pain and cramp in his muscles in the middle of the race. He asked his biology teacher for the reason.
- Why did Anirudh feel the pain?
 - What type of respiration occurred in his muscles?
 - What value does Anirudh exhibit?

SECTION – E

24. Draw diagram of stages of Prophase I of meiosis. Write one important feature of each phase
- Or**
- Explain briefly the mechanism of enzyme action of enzymes.
25. Where does calvin cycle take place in chloroplast? Describe the three phases of calvin cycle with a diagrammatic representation.
- Or**
- Where does non-cyclic photophosphorylation take place? Describe this process.
26. Explain the transmission of a nerve impulse across a chemical synapse with help of a suitable diagram.

Or

What is meant by a reflex arc? Draw a reflex arc and mention its components in proper sequence and their functions in a reflex action.