Model Question Paper - 1
unsolved XI
BIOLOGY (Theory)

Time : 3 Hrs. **M.M : 70**

General Instruction

(i) All questions are compulsory.

(ii) The questions paper consist of four section A, B, C and D. Section 'A' Contain 8 quetions of 1 mark each. Section 'B' is of 10 questions of 2 marks each. Section 'C' has 9 questions of 3 marks each. Section 'D' is of 3 question of 5 marks each.

(iii) There is no overall choice. However, and internal choice has been provided in one question of 2 marks. One question of 3 marks and all the three questions of 5 marks.

(vi) Wherever necessary, the diagram draw should be neat and properly labelled.

Section 'A'

1. What is function of mucus present is grastric juice ?
2. In which stage of interphase the amount of DNA doubles per cell.
3. Name the polysaccharide which constitutes the exoskeleton of arthropods.
4. Why do lichen generally grow at high altitude ?
5. Select the uricotelic from the following mammals, birds, Cockroach, reptiles.
6. Which is the lowest category in taxomomic categories.
7. Write the floral formula of family Liliaceae.
8. Difine sarcomere.

Section 'B'

9. Write any two differences between a prokaryotic cell and a eukaryotic cell.

10. Illustrate a glycosidic and phosphodiester bond.
11. State the importance of air bladder in pisces.
12. Bile juice contain no digestive enzyme, yet it is important for digestion. Why ?
13. Explain the role played by protein pumps during active transport is plants.
14 State the functions of PCT in our body.
15. How are exarch and endarch conditions differ anatomically in stem and root ?
16 What is the importance of F_0-F_1 particles in ATP synthesis during aerobic respiration ?
17. Define the following : (i) Tidal volume (ii) Inspiratory capicity

OR

Where is Carbonic anhydrase is found ? Write its function.

18. In the given table, showing the name of some hormone and their function. Fill in the blank A to D

Hormone	**Function**
Prolactin	A
B.	Stimulates Contraction of muscle of uterus during parturition
Thymus	C
D	regulate female sexual behaviour

Section 'C'

19. Give the account of total ATP production in aerobic respiration.
20. (a) How does abscisic acid acts antagonistically to auxin and Gibberellin. ?
    (b) Name the growth regulator used for each of the following.
    (i) ripening of fruits
    (ii) Induce parthenocarpy

21. In what form do plants absorb Nitrogen, Phosphorus and Boron ? List any two role of Patassium in Plants.

22. State the location and function of different types of meristem.

23. How do concentration of substrate affects the activity of an enzyme ?

24. Explain the process of depolarisation of the plasma memubrane of a nerve fibre.

25. Differentriati between :

    (a) Apocarpus and syncarpus ovary

    (b) Actinomorphic and Zygomorphic flower

    (c) Recemose and Cymose inflorescence.

OR

Name the three Classes of algae. Write major pigment and food stored in them.

26. (a) Why is mitosis is called equational division ?

    (b) How does Cytokinesis in plant cells differ from that of animal cells.

27. Where do you find the following and give their function also.

    (i) Setae (ii) Malpighian tubules

Section 'D'

28. (a) What is blood ? Give the composition of plasma.

    (b) Name the three types of Blood cells found is blood. Give their number per mm^3 and also their functions.

OR

    (a) What is Lymph ? Where is it found ?

    (b) Describe Mechanism of blood Coagulations takes place after an injury in our body.

29. (a) What is Chromatin ? Name two components of Chromatin.

    (b) Describe four types of Chromosoms with diagram of each.

OR

(a) What is a mesosome in a prokaryotic cell ? Mention its function.

(b) Draw a neat diagram of typical animal cell and label the following parts -

nucleus, mitochondria, ER, centriole,

(c) Give one point difference in animal cell and plant cell.

30. Describe the process of CO_2 fixation given by Hatch and Slack

OR

Where does non-cycle photophosphorylation takes place ? Describe this process. Why is this process referred to as non-cyclic ?