



Instructions:

Draw diagrams wherever necessary

Unlabelled diagrams do not get any marks.

SECTION-A

I Answer the following questions in a word or sentence

10 x 1 = 10

- 1 What is metagenesis?
- 2 Which pigment acts directly to convert light energy to chemical energy?
- 3 What is an endosperm?
- 4 Name the phylum in which adults exhibit radial symmetry and larvae exhibit bilateral symmetry.
- 5 In which cell Organelle Krebs's Cycle occurs?
- 6 Name the metal ion which is a constituent of Chlorophyll.
- 7 Define phyllotaxy.
- 8 What Constitutes the cambial ring?
- 9 When is the Dup Sound produced?
- 10 What is Gout?

SECTION-B

II Answer any FIVE of the following questions in 3-5 sentences each

5 x 2 = 10

- 11 Mention the lobes of Cerebrum.
- 12 Which group of fungi are called imperfecti? Why?
- 13 Differentiate polyp from medusa.
- 14 What is Syncarpous pistil? Give an example.
- 15 Differentiate spring wood from autumn wood.
- 16 Write the significance of meiosis.
- 17 Name the first formed C₃ and C₄ Compounds.
- 18 State the functions of LH.

SECTION-C

III Answer any FIVE of the following questions in about 40 to 80 words each, wherever applicable

5 x 3 = 15

19 Assign the following plants to their respective families.

- a) Ashwagandha, b) Allium cepa, c) Pisum sativum d) Datura stramonium, e) Atropa belladonna, f) Lycopericum esculentum.

20 Explain the phases of Sigmoid Curve.

21 Write a short note on any 3 macro nutrients.

22 Explain the fluid mosaic model of plasma membrane.

23 With a neat labelled diagram explain human excretory system.

24 Explain the mechanism of conduction of heart beat.

25 Write a note on reflex action with an example.

26 Give the Schematic representation of Dark reaction.

SECTION-I

IV Answer any FOUR of the following questions in 200-250 words each.

4 x 5 = 20

27 Explain the mechanism of translocation of Organic Solutes.

28 Write the difference between chondrichthyes and Osteichthyes.

29 Describe the structure of a phloem with a neat labelled diagram.

30 Explain the structure of a nephron.

31 Listout the general characters of class: Aves.

32 With a neat labelled diagram explain the pathway of movement of water.

SECTION-II

V Answer any THREE of the following

3 x 5 = 15

33 How does ear convert Sound waves into neural impulses enabling us to recognize a sound?

34 Draw a neat labelled diagram of digestive system of cockroach. Explain.

35 Write a short note on dead tissue.

36 Explain the strucutre of mitochondria with a neat labelled diagram.

37 Explain the Transpiration pull theory of ascent of sap.
