

**Answer key**

**Q.1. A. Choose correct option:**

- a. Grana of Chloroplast
- b. Pectin
- c. Calcium Pectate
- d. Tansley
- e. Aquatic
- f. Producers
- g. Pp
- h. 9:3:4
- i. None of the above
- j. Test Cross

**Q.1. B. Answer in one sentence**

- i. Structural Proteins- meaning with example – 2 marks
- ii. Any 2 fuctions of chloroplast – 1 mark each
- iii. Producers – Definition with one example- 2 marks
- iv. Trophic level – defination– 2 marks
- v. Heterozygote – defination with example- 2 marks

Q.2. a. Description of Ultrastructure of ER - 4 Marks and Diagram -4 marks  
Functions – 2 marks

Q.2.b. Diagram of Fluid mosaic model – 5 Marks  
Structure description – 5 marks

Q.2. c. Structure of Plant cell – Explanation – 5 marks  
Diagram – 5 marks

Q.2. d. Description of Ultrastructure of Cell wall - 5 Marks and Diagram -5 marks

Q.3. a. Definition of ecosystem – 1 mark  
Forest Ecosystem – description with examples – 9 marks

Q.3. b. Laws of Thermodynamics- 3 laws – Statement, explanation – 3 marks each,  
significance 1 mark

Q.3.c. Food chain – defination & Description – 2 marks  
Types of food chain – Description/ Explanation 8 Marks

Q.3.d. Biotic and abiotic component – meaning, Explanation with examples - 5 Marks each

Q.4.a. Epistasis – Meaning/ explanation – 2 Marks

Duplicate dominant epistasis – description with example - 8 Marks

Q.4.b. Complete dominance – Description with one example – 5 marks

Incomplete Dominance – Description with one example – 5 marks

Q.4.c. Dihybrid Ratio - Meaning- 2 marks

Example with explanation - 8 Marks

Q.4.d. . i) CcPp x ccPp - Phenotype and Genotype of the parents and progeny - 4 marks, phenotypic ratio – 1 mark

ii) CCpp x CcPp - Phenotype and Genotype of the parents and progeny - 4 marks, phenotypic ratio – 1 mark

Q.5. short notes on (any four)

- a) Functions of Chloroplast (5functions) – 5 Marks
- b) Plasmodesmata – meaning 2 mark; functions – 3 marks
- c) Y-Shaped energy flow model – Schematic/ explanation- 5 marks
- d) Pyramid of Biomass – explanation with example- 5 marks
- e) Monohybrid ratio – definition 2 mark; explanation with example – 3marks
- f) Multiple alleles – meaning with example- 5 marks

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