

Janki Devi Bajaj Government Girls College, Kota

Department of Botany

M.Sc. Botany Semester – III

Paper-XI Plant Development and Reproduction

Maximum Marks 15

Very short questions (1 marks each)

1. What are synergids?
2. What is orthotropus type of ovule?
3. Define caruncle.
4. Draw labelled diagram of pollinium.
5. What is tapetum?

Short answered question (2.5 marks each)

6. Explain homeotic mutants of *Arabidopsis*.
7. Explain microsporogenesis.

Long answered questions (5 marks each)

8. Describe development of female gametophyte.

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Paper-XII Cytogenetics

Maximum Marks 15

Very short questions (1 marks each)

1. What are mutagens?
2. What is trisomy?
3. Define introns. .
4. Define linkage group.
5. What is C - value paradox?

Short answered question (2.5 marks each)

6. Explain RNA Splicing.
7. What are introns? Explain their significance.

Long answered questions (5 marks each)

8. Define Operon. Explain regulation of gene expression in prokaryotes.

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Paper-XIII Taxonomy of Angiosperms

Maximum Marks 15

Very Short Questions (1 marks each)

1. Define Herbarium.
2. Give two characters of primitive angiosperm.
3. Describe Alpha taxonomy.
4. Define flora.
5. Describe species.

Short answered question (2.5 marks each)

Write short notes on the following

6. Taxonomic Keys
7. ICBN

Long answered questions (5 marks each)

8. Explain family Asteraceae with example. Give suitable floral diagram.

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Paper-XIV (a) Advanced Plant Pathology - I

Maximum Marks 15

Very Short Questions (1 marks each)

1. Define virulence.
2. Who proposed Toxin hypothesis?
3. What is host specific toxin?
4. Which test method is used for detection of bacterial and viral pathogen during plant quarantine?
5. Who first used antibiotic against bacterial diseases?

Short answered question (2.5 marks each)

6. Write short note on disease resistance.
7. Write short note on SAR.

Long answered questions (5 marks each)

8. Write detail note on Flag smut of wheat.

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Paper-XIV (b) Advanced Plant Ecology – I

Maximum Marks 15

Very Short Questions (1 marks each)

1. Define Ecosystem. Name two types of ecosystem.
- 2 Define the term Biodiversity.
- 3 Name the biogeochemical cycles occurring in nature.
- 4 What is 3 R's strategy?
- 5 What do you mean by Non conventional energy sources? Give examples.

Short answered question (2.5 marks each)

Write a brief note on

6. Global warming
7. Air Pollution Act

Long answered questions (5 marks each)

8. Write a detail note on Environment Impact Assessment.