

Janki Devi Bajaj Government Girls College, Kota

Department of Botany

M.Sc. Botany Semester – IV

Paper-XVI Biotechnology and Biometrics

Maximum Marks 15

Very short questions (1 marks each)

1. Define totipotency.
2. Who have done first protoplast isolation?
3. What is cosmid?
4. What is formula of standard error?
5. Give example of two transgenic plants.

Short answered question (2.5 marks each)

6. What is somatic embryogenesis
7. Explain c - DNA library.

Long answered question (5 marks each)

8. Explain tools and techniques of recombinant DNA technology.

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Paper-XVII Plant Morphology and Anatomy

Maximum Marks 15

Very short questions (1 marks each)

1. What is module?
2. Differentiate between monocots and dicots?
3. Define leaf trace.
4. What is sap wood?
5. Define canopy architecture?

Short answered question (2.5 marks each)

6. Explain annuals, biennials and perennials.
7. Explain structure of wood.

Long answered questions (5 marks each)

8. Define flower. Explain flower is modified shoot.

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Paper-XVIII Seed Biology and Plant Breeding

Maximum Marks 15

Very short questions (1 marks each)

1. Write the name of 2 research institutes related to plant breeding.
2. Name different plant selection methods.
3. What is emasculation?
4. Which compound can induce seed dormancy?
5. Name the proteinaceous part of maize endosperm.

Short answered question (2.5 marks each)

6. What do you mean by seed dormancy?
7. Write significance of seed.

Long answered questions (5 marks each)

8. Write the process of synthesis of seed.

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Paper-XIX (a) Advanced Plant Pathology – II

Maximum Marks 15

Very short questions (1 marks each)

1. Name 2 diseases caused by nematodes.
2. Name causal organism of red stripe of sugarcane.
3. Write symptoms of bunchy top of banana.
4. What is acquired immunity?
5. What is gall?

Short answered question (2.5 marks each)

6. Write contribution of R. S. Singh.
7. Explain transmission of viral diseases.

Long answered questions (5 marks each)

8. Write detail note on soft rot of vegetables.

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Paper-XIX (b) Advanced Plant Ecology – II

Maximum Marks 15

Very short questions (1 marks each)

1. Name 1 example each of hot and cold deserts.
2. Define salinity.
3. Name 2 plants of mangrove vegetation.
4. What is phenology?
5. What do you understand by biological productivity?

Short answered question (2.5 marks each)

6. Write characteristics of Halophytes.
7. Write short note on Dry land farming.

Long answered questions (5 marks each)

8. Write detail note on stabilization and management of sand dunes.