

PGIVS 1580 A-16
M.Sc. IVth Semester Degree Examination
Botany
(Plant Pathology & Plant Protection)
Paper : HCT - 4.1

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates:

1. Answer any *five* questions
2. *Question No. 1 is compulsory.*

1. Answer in **One** or **Two** sentences : (8×2=16)
 - a) Aerobiology
 - b) Epidemiology
 - c) Koch's postulates
 - d) Polygene hypothesis
 - e) Smut
 - f) Sporadic
 - g) Trap Crops
 - h) Trichoderma harzianum
2. Give an account on Biochemical defense mechanism in plants. (16)
3. Describe the methods of monitoring splash borne and airborne inoculum. (16)
4. Give an account on plant diseases of Gulbarga region caused by Bacteria and viruses. (16)

5. Write a note on plant quarantine, regulation, inspection and certification. (16)
6. Write a short notes on any **four** of the following :
- a) Biotic causal factors
 - b) Assessment of disease incidence
 - c) History of plant pathology
 - d) Hypersensitive reaction
 - e) Physical methods of plant disease control
 - f) Systemic chemicals. (4×4=16)
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PGIVS 1581 A-16
M.Sc. IVth Semester Degree Examination
Botany
(Plant Biotechnology)
Paper : BOT. HCT - 4.2

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates:

1. Answer any **five** questions
2. Question No. 1 is compulsory:

1. Answer in **One** or **Two** sentences : **(8×2=16)**
 - a) 2, 4 - D
 - b) P.R. White
 - c) Cybrid
 - d) Totipotency
 - e) PEG
 - f) Laminar air flow cabinet
 - g) Callus
 - h) Vitamins
2. Describe in detail the requirements to organize a plant tissue culture lab. Add a note on the instruments required. **(16)**
3. Describe in detail the technique of Anther Culture and a note on haploids in Crop improvement **(16)**

4. What is somatic hybridization? Describe in details the isolation and fusion of plant protoplast. (16)
5. Write an account on plant secondary metabolites. Add a note on Elicitation technique?(16)
6. Write a short notes on any **four** of the following :
- a) Hairy roots
 - b) Somatic embryogenesis
 - c) Cytokinins
 - d) Hormonal control of organogenesis
 - e) Synthetic seeds
 - f) Selection of somatic hybrids. (4×4=16)
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PGIVS 1582 A-16
M.Sc. IVth Semester Degree Examination
Botany
(Medicinal & Aromatic Plants)
Paper : SCT - 4.4.1

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates:

1. Answer any **five** questions
2. Question No. 1 is compulsory.

1. Answer in **One** or **Two** sentences : (8×2=16)
 - a) Ethnomedicine
 - b) Infertility
 - c) IPR
 - d) Lectins
 - e) IR
 - f) Costus
 - g) Siddha
 - h) Jaundice
2. Explain the properties and active compounds from lichens with respect to medicine. (16)
3. Describe the method and preparation of herbal drugs for the treatment of respiratory disorders. (16)
4. Give the principles and applications of NMR spectral analysis. (16)
5. Discuss cultivation practices, diseases and methods of pest control and storage of medicinal plants (16)

6. Write short notes on any **four** of the following :

- a) History and importance of ethnobotany
- b) Plants used as general tonics
- c) Medicinal value of mushrooms
- d) Use of vegetable oil in industry
- e) Controversial drugs
- f) Withania

(4×4=16)

6. Write short notes on any **four** of the following :

a) History and importance of ethnobotany

b) Plants used as general tonics

c) Medicinal value of mushrooms

d) Use of vegetable oil in industry

e) Controversial drugs

f) Withania

(4×4=16)
