

B.Sc. Semester - IV (Hons.) Examination (CBCS), 2022
Subject: Botany
Paper : SEC-2
(Biofertilizer)

FM-40

Time- 2 hrs

A. Answer any five from the following.

2X5 = 10

1. Mention the advantages of using biofertilizers over chemical fertilizers.
2. Write down the name of any two fungi found in ectomycorrhizal association.
3. What is PGPR?
4. Define VAM.
5. Write two examples of green manure.
6. What are the different types of composting?
7. What is carrier based inoculants?
8. Write down the importance of *Azotobacter* as biofertilizer.

B. Answer any two from the following.

5X2 = 10

1. Define actinorrhizal symbiosis. Give one example.
2. Write down the isolation procedure of *Rhizobium* from root nodule.
3. Write down the isolation and inoculum production of VAM.
4. What is vermicompost? How is vermicomposting useful in agriculture?

C. Answer any two from the following.

10X2 = 20

1. Briefly describe different types of mycorrhizal association. Write down the roles of mycorrhizae in growth and yield of crop plants.
2. Define biodegradable waste. Write down the recycling process of biodegradable wastes obtained from agricultural and industrial sources.
3. Describe isolation and mass multiplication process of *Azospirillum*.
4. Briefly describe the mechanism that influence the growth and yield of crops.

B.Sc. SEM-IV (Hons.) Examination (CBCS), 2022

Subject: Botany

**Paper : SEC-2
(Floriculture)**

F.M. 40

Time-2 hrs.

Q A. Answer any five from the following:

2×5= 10

1. Which is the best method for pest control?
2. What do you mean by floriculture? Give example of it.
3. What is flower preservative? Give examples.
4. What are the main objectives of landscaping for industrial area?
5. What is shrubby border?
6. What is the difference between a cycad and a palm?
7. What are the key elements for nursery management?
8. What is the difference between seeding and sowing?

Q. B. Answer any two from the following:

5×2= 10

1. Briefly describe the application of plant growth regulator in floriculture.
2. What are the basic principles of garden design?
3. What is the cultivation procedure of *Chrysanthemum*?
4. Which character is common for *Selaginella* and fern? Which is the biggest garden in India?

Q. C. Answer any two from the following:

10×2= 20

1. What is plant nursery management? Mention the advantages of nursery management? What are the common problems in the nursery management?
2. Briefly describe the most common disease in plants? Discuss the difference between pest and disease? What do you mean by 'topiary'?
3. How do you set up a small water garden? State the importance of water garden.
4. What is the difference between gardening and landscaping? Comment on two bulbous and two foliage ornamental plants.

B.Sc. Semester- IV (Honours) Examination (CBCS), 2022
Subject: Botany
Paper: SEC-2
(Herbal Technology)

F.M. - 40

Time – 2 hours

A. Answer any five from the followings:

2x5 = 10

1. What is pharmacognosy?
2. Write the scientific name & family of Fenugreek.
3. Give two medicinal uses of Ginger.
4. Name two active constituents of *Catharanthus roseus*.
5. Write the scientific name & family of an anti-rheumatic plant.
6. Can we call secondary metabolite as stress protectant?
7. What do you mean by Herbal medicine?
8. Write the scientific name & family of Neem.

B. Answer any two from the followings:

5x2 = 10

1. Briefly describe the role of medicinal plants in Siddha system of medicine.
2. Write the medicinal uses of Tulsi.
3. Write a short note on micropropagation of *Withania somnifera*.
4. Illustrate the different phytochemical screening tests for alkaloids.

C. Answer any two from the followings:

10x2 = 20

1. Write the systematic position of Indian Goose berry. Mention its active constituents. Briefly describe the medicinal uses of this plant.
2. What is drug adulteration? Briefly describe the different types of drug adulterations. Mention three secondary metabolites and its reagents for phytochemical test.
3. Mention the active principles and medicinal uses of *Centella asiatica* and *Catharanthus roseus*.
4. Briefly comment on the phytochemical screening test for alkaloids and phenolic compounds.

B.Sc. Sem-IV (Honours), Examination (CBCS), 2022

Subject: Botany

Paper: SEC 2

[Nursery and Gardening]

Time: 2 Hours

Full marks: 40

A. Answer any five questions from the following:

2 X 5 = 10

1. What are transplants?
2. Write down the scientific name of carrot.
3. Define nursery.
4. State two important needs of seed certification.
5. What is the need of greenhouse in horticulture?
6. Differentiate between shade house and glass house.
7. What are the components of a park?
8. Define manuring.

B. Answer any two questions from the following:

5 X 2 = 10

1. State the factors affecting seed viability.
2. What are the necessary infrastructures for building up a nursery?
3. Schematically describe the methodology of hardening of plants.
4. Illustrate the management method of pests and diseases during harvesting of crops.

C. Answer any two questions from the following:

10 X 2 = 20

1. What is Seed dormancy? Write down the causes and methods of breaking seed dormancy.
2. Define Gardening. State its objectives. Write a short note on different types of gardening.
3. With the help of flow chart describe the method of cultivation of Onion.
4. Briefly describe the storage and marketing procedure of brinjal.

B.Sc. Semester-IV (Honours) Examination (CBCS) 2022

Subject: Botany

Paper: SEC-2

(Plant Diversity and Human Welfare)

Time: 2 Hours

Full Marks: 40

1. Answer any five questions from the following: 2x5=10

- (a) Define biodiversity.
- (b) State the importance of biodiversity conservation.
- (c) How habitat destruction is correlated with biodiversity loss?
- (d) Write the full name of IUCN and NBPGR.
- (e) What are wild taxa? Give example.
- (f) State two examples of *in situ* conservation.
- (g) Mention any four commercial applications of forestry.
- (h) Name one Indian avenue tree and one Indian ornamental tree.

2. Answer any two questions from the following: 5x2=10

- (a) Briefly describe different types of biodiversity.
- (b) Mention actual causes of the losses of biodiversity in agronomical point of view.
- (c) Briefly narrate the importance of sustainable development.
- (d) State the roles of plants in beverage industry.

3. Answer any two questions from the following: 10x2=20

- (a) Describe the scopes and values of biodiversity with example.
- (b) What are the different management strategies is used to maintain the biodiversity?
- (c) Classify the different threatened species according to IUCN Red data book.
- (d) Illustrate the utilization of forest products in relation to human welfare.
