K23N 0029

Reg. No. : .....

Name : .....

IV Semester M.Sc. Degree (C.B.S.S. – Reg./Supple./Imp.) Examination, April 2023
(2019 Admission Onwards)
PLANT SCIENCE
PSB4E02 : Horticulture and Mushroom Cultivation

Time : 3 Hours Max. Marks : 60

***Instruction** : Draw diagrams **wherever** necessary.*

SECTION – A

Answer **any two** questions; **one** from **each** bunch of **two** : **(2×8=16)**

1. A) Enlist the various systems of irrigation. Explain any three in detail.

   OR

   B) Give an account of different types of layering and add note on its advantage.

2. A) Enlist and explain different methods of substrate preparation for Oyster mushroom.

   OR

   B) Draw schematic representation of 'life cycle of Agaricus' and Explain.

SECTION – B

Answer **any three** questions : **(3×5=15)**

3. Explain the medicinal values of mushrooms.

4. Define seed dormancy. How seed dormancy can be overcome ?

5. What is the principle of fertilizer application ? Enlist the different methods of fertilizer application.

6. Explain the chemical method of weed control in horticulture crops and its advantages.

P.T.O.

SECTION – C

Answer **any five** questions : **(5×3=15)**

7. Differentiate between eradication and exclusion for pest management.
8. Importance of the application of biofertilizer.
9. What is grafting ? Write a note on reason for grafting.
10. Explain the role of horticulture crops in human nutrition.
11. What is training ? Add a note on its objective.
12. Explain significance of green house in horticulture.
13. Differentiate between oyster and button mushroom.
14. Give an account of the morphology of agaricus.
15. Give an account on poisonous mushrooms.

SECTION – D

Answer **any seven** questions : **(7×2=14)**

16. What is Spawn ?
17. Give scientific name of two mushrooms which are used as medicine ?
18. What is meant by composting ?
19. Describe the vegetative structure of agaricus.
20. Explain fruit drop and fruit ripening.
21. What are straight fertilizers ?
22. What are selective herbicides ?
23. Discuss about method of harvesting in fruit crops.
24. Define floriculture.
25. Write the deficiency symptoms of nitrogen and calcium in plants.

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K24N 0074

Reg. No. : .....

Name : .....

Fourth Semester M.Sc. Degree (CBSS – Reg./Supple./Imp.) Examination, April 2024
(2021 Admission Onwards)
PLANT SCIENCE
PSB4E02 : Horticulture and Mushroom Cultivation

Time : 3 Hours Max. Marks : 60

***Instruction** : Draw diagrams **wherever** necessary.*

SECTION – A

Answer **any two** questions, **one** from **each** bunch of **two**. **(2×8=16)**

1. A) Write an essay on various grafting techniques used in horticultural plants. Give examples.

   OR

   B) What are the factors influencing the growth and development of plants ?

2. A) Explain different methods of Paddy straw mushroom cultivation.

   OR

   B) Explain health benefits of mushroom.

SECTION – B

Answer **any three** questions. **(3×5=15)**

3. What is irrigation ? What are the different methods of irrigation ?

4. What are the merits and demerits of seed propagation ?

5. Define layering. Discuss any four layering techniques practiced in horticulture.

6. How would you differentiate between edible and poisonous mushrooms ?

P.T.O.

SECTION – C

Answer **any five** questions. **(5×3=15)**

7. Write down deficiency symptoms of iron and manganese and how their deficiency can be rectified ?
8. What is the difference between training and pruning in plants ?
9. What is pollen viability ? How is it determined ?
10. What is crop protection ? What are the methods of crop protection ?
11. What are horticultural and commercial crops ? Give examples.
12. Give an account of propagation methods used in Chrysanthemum.
13. What is Spawn ? How is it prepared ?
14. What is casing ? Mention its importance.
15. How are mushrooms classified based on their occurrence ? Give examples.

SECTION – D

Answer **any seven** questions. **(7×2=14)**

16. What is Vermicomposting ?
17. What are biofertilizers ? Give examples.
18. What is the difference between pomology and olericulture ?
19. What is the need of spacing in horticultural practice ?
20. Why is a glass house called a green house ?
21. What is weeding ? Mention two methods of weeding.
22. Mention any two nutritional values of edible mushrooms.
23. What is meant by composting ?
24. What are the substrates used for mushroom cultivation ?
25. Write the binomial of any two species of Oyster mushroom.

K24N 0075

Reg. No. : .....

Name : .....

Fourth Semester M.Sc. Degree (C.B.S.S. – Reg./Supple./Imp.) Examination, April 2024
(2021 Admission Onwards)
PLANT SCIENCE
PSB4E05 : Phytoresources, Phytochemistry and Pharmacognosy

Time : 3 Hours Max. Marks : 60

Instruction : *Draw diagrams* ***wherever*** *necessary.*

SECTION – A

Answer **any two** questions; **one** from **each** : **(2×8=16)**

1. A) Give an account on the chromatography techniques used for the isolation and elucidation of phytoconstituents from medicinal plants.

   OR

   B) Describe the various types of secondary metabolites and their extraction techniques.

2. A) Explain the different conservation strategies.

   OR

   B) Describe in detail about the biosynthetic pathways of major secondary metabolites.

SECTION – B

Answer **any 3** questions : **(3×5=15)**

3. Briefly explain NWFPs.

4. Describe briefly the methods and approaches to study traditional knowledge.

5. Write a brief account on various pharmacognostic methods to check the quality of herbal medicines.

6. Give a brief description on the ayurvedic drugs from different plant parts with suitable examples.

P.T.O.

SECTION – C

Answer **any 5** questions : **(5×3=15)**

7. Write a short account on the origin of agriculture.
8. Give a brief account on the origin, evolution, botany, cultivation and uses of food plants of Kerala.
9. Briefly describe the history and development of ethnobotany in India.
10. Write a brief account on the constituents of drugs.
11. What are the national and international initiatives on *ex situ* conservation approaches ?
12. Write a detailed account on the analysis and biosynthetic pathway of terpenes.
13. How the drug adulterants are detected ?
14. List out and describe the major problems associated with biodiversity loss.
15. Differentiate between gene banks and seed banks.

SECTION – D

Answer **any 7** questions : **(7×2=14)**

16. Gums and resin yielding plants.
17. *Nalpamara*.
18. Polyphenols.
19. Voucher specimens.
20. Adulterants used in drug preparation.
21. Give two suitable examples of drugs obtained from flowers.
22. Drug synergism.
23. Protected areas in conservation of phytoresources.
24. Raw materials for paper making.
25. Types of tropical medicinal plants.