

Seat
No.

SC-287
Total No. of Pages : 2

M.Sc. (Part - II) (Semester - IV) Examination, March - 2023

BOTANY

CC-401 : Plant Physiology and Metabolism

Sub. Code : 82888/86622

Day and Date : Monday, 12 - 06 - 2023

Total Marks : 80

Time : 10.30 a.m. to 1.30 p.m.

- Instructions :
- 1) Question number 7 is compulsory.
 - 2) Attempt any four questions from the remaining.
 - 3) All questions carry equal marks.
 - 4) Draw neat diagrams wherever necessary.

Q1) Explain in detail source to sink pathways. [16]

Q2) Describe plant respiration. [16]

Q3) Comment upon the roles of phenols. [16]

Q4) Write in detail on mechanism of action of ABA. [16]

P.T.O.

Q5) Explain:

- a) Apoplastic phloem loading. [8]
- b) Modification of CAM. [8]

Q6) Describe:

- a) Nitrate assimilation. [8]
- b) Auxin transport. [8]

Q7) Write short notes on any four of the following: [16]

- a) Objections to Protoplasmic streaming theory.
- b) PEPcase.
- c) GOGAT.
- d) Heat Shock Proteins.
- e) Photo oxidation of water.
- f) Response of plants to pathogen attack.



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M.Sc. (Part - II) (Semester - IV) (CBCS) Examination, March- 2023

BOTANY

Biodiversity : Conservation and Utilization

Paper No. :XIV (DSE 404)

Sub. Code : 82889/86623

Day and Date : Tuesday, 13 - 06 - 2023

Total Marks: 80

Time : 10.30 a.m. to 01.30 p.m.

- Instructions:
- 1) All questions carry equal marks.
 - 2) Question number 7 is compulsory.
 - 3) Attempt any Four questions from the remaining.
 - 4) Draw neat diagrams wherever necessary.

Q1) Describe direct and indirect values of biodiversity. [16]

Q2) Describe role and functions of BSI. [16]

Q3) Briefly bring out the differences between ex-situ and in-situ conservation approach. [16]

Q4) Describe wild plants of ornamental potential with suitable examples. [16]

Q5) Explain :

a) Ethical values of Biodiversity. [8]

b) Activities of NBPGR. [8]

Q6) Describe :

a) Mangroves. [8]

b) Importance of wild relatives. [8]

Q7) Write short notes on any Four of the following. [4×4=16]

a) Types of endemism.

b) CSIR.

c) National Parks.

d) Energy Plants.

e) Mega Diversity countries.

f) Seed Banks.



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M.Sc. (Part - II) (Semester - IV) (CBCS) Examination, March-2023

BOTANY

Mycology and Plant Pathology-III

CCS-402.2. : Industrial Mycology

Sub. Code : 82894/86627

Day and Date : Wednesday, 14 - 06 - 2023

Total Marks: 80

Time : 10.30 a.m. to 01.30 p.m.

- Instructions:
- 1) All questions carry equal marks.
 - 2) Question number 7 is compulsory.
 - 3) Attempt any Four questions from the remaining.
 - 4) Draw neat diagrams wherever necessary.

Q1) Give the industrial process of production of fumaric acid. [16]

Q2) Give the process of industrial production of invertase. [16]

Q3) Describe the process of industrial production of ergot alkaloids. [16]

Q4) Write in detail on techniques applied in *Agaricus bisporus* cultivation by short method. [16]

Q5) Explain the following :

a) Grain alcohol. [8]

b) *Saccharomyces fragilis*. [8]

Q6) Write on :

- a) Economics of fermentation. [8]
- b) Nutritional value of mushrooms. [8]

Q7) Write short notes on *any Four* of the following. [16]

- a) Importance of commercial fungal strains.
- b) Uses of Proteases.
- c) Antibiotics Resistance.
- d) *Aspergillus flavus*.
- e) Wehmer.
- f) Balling Hydrometer.



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M.Sc. (Part - II) (Semester - IV) (CBCS)
Examination, March - 2023
BOTANY (Mycology and Plant Pathology-IV)
(Paper-XVI)
CCS-403 : Integrated Disease Management
Sub. Code: 82901/86636

Day and Date : Thursday, 15 - 06 - 2023

Total Marks : 80

Time : 10.30 a.m. to 1.30 p.m.

- Instructions :
- 1) All questions carry equal marks.
 - 2) Question number 7 is compulsory.
 - 3) Attempt any four questions from the remaining.
 - 4) Draw neat diagrams wherever necessary.

Q1) Write in brief methods of disease diagnosis. [16]

Q2) Define fungicide. Give the classification of fungicides. [16]

Q3) Describe symptomology, pathogen, etiology and management of any two diseases of Jowar. [16]

Q4) Describe symptomology, pathogen, etiology and management of any two diseases of Grape. [16]

Q5) Explain the following:

a) Hyperparasitism [8]

b) Entomogenous fungi [8]

P.T.O.

Q6) Write on:

- a) Downy mildew of sunflower [8]
- b) Pigeon pea wilt [8]

Q7) Write short notes on any four of the following: [16]

- a) Quarantine laws.
- b) Safeners.
- c) Selection of field.
- d) Trichoderma spp.
- e) Bunt of Wheat.
- f) Grassy shoot of Sugarcane

