

## CERTIFICATE COURSE IN MUSHROOM CULTIVATION

**Objectives:**

To enable student – To acquire Knowledge of Mushroom Cultivation

**Duration of the Course:**

Certificate:6 months

Diploma: 1 Year

**Eligibility:**

Any student enrolled in the degree program of the college.

<b>Subjects covered under Certificate Course are Sr No. 1,2 and 3</b>	
<b>Name of Paper</b>	<b>Credits</b>
GC-MC-01T Mushroom Cultivation -I	06
GC-MC-02T Mushroom Cultivation -II	06
GC-MC-03P Practical and Project-I	06 (Lab Only)

## **Mushroom Cultivation-I**

**Total Marks: 100**  
**External Marks: 70**  
**Internal Marks: 30**  
**Credits: 6**  
**Pass Percentage: 35%**

### **INSTRUCTIONS FOR THE PAPER SETTER/EXAMINER:**

1. The syllabus prescribed should be strictly adhered to.
2. The question paper will consist of three sections: A, B, and C. Sections A and B will have four questions from the respective sections of the syllabus and will carry 10 marks each. The candidates will attempt two questions from each section.
3. Section C will have fifteen short answer questions covering the entire syllabus. Each question will carry 3 marks. Candidates will attempt any ten questions from this section.
4. The examiner shall give a clear instruction to the candidates to attempt questions only at one place and only once. Second or subsequent attempts, unless the earlier ones have been crossed out, shall not be evaluated.
5. The duration of each paper will be three hours.

### **INSTRUCTIONS FOR THE CANDIDATES:**

Candidates are required to attempt any two questions each from the sections A and B of the question paper and any ten short questions from Section C. They have to attempt questions only at one place and only once. Second or subsequent attempts, unless the earlier ones have been crossed out, shall not be evaluated.

### **Section-A**

**Unit-I-** Introduction to specify Mushrooms, Status & scope of Mushrooms cultivation.

**Unit-II-** Isolation of pure mushrooms culture, Maintenances and presumption of mushrooms culture.

### **Section-B**

**Unit III-** Hang method of composting for button mushrooms  
-Short method of composting for button mushrooms  
-Introduction and cultivation techniques for oyster mushrooms  
-Introduction and cultivation techniques for shitake mushrooms  
-Economics of mushrooms cultivation.

**Unit IV -** Preparation of Mushroom value-added products  
Mushroom diseases and their management  
Pest management of mushrooms

## Mushroom Cultivation -II

**Total Marks: 100**  
**External Marks: 70**  
**Internal Marks: 30**  
**Credits: 6**  
**Pass Percentage: 35%**

### **INSTRUCTIONS FOR THE PAPER SETTER/EXAMINER:**

1. The syllabus prescribed should be strictly adhered to.
2. The question paper will consist of three sections: A, B, and C. Sections A and B will have four questions from the respective sections of the syllabus and will carry 10 marks each. The candidates will attempt two questions from each section.
3. Section C will have fifteen short answer questions covering the entire syllabus. Each question will carry 3 marks. Candidates will attempt any ten questions from this section.
4. The examiner shall give a clear instruction to the candidates to attempt questions only at one place and only once. Second or subsequent attempts, unless the earlier ones have been crossed out, shall not be evaluated.
5. The duration of each paper will be three hours.

### **INSTRUCTIONS FOR THE CANDIDATES:**

Candidates are required to attempt any two questions each from the sections A and B of the question paper and any ten short questions from Section C. They have to attempt questions only at one place and only once. Second or subsequent attempts, unless the earlier ones have been crossed out, shall not be evaluated.

### **Section-A**

**Unit I-** Important features of edible fungi  
Nutritional & Medicinal values of mushrooms

Unit II- Spawn preparation teachings  
Biotechnological appearances for mushrooms  
Strain improvement

### **Section-B**

**Unit III-** Introduction and cultivation techniques for milky mushrooms  
Paddy straw mushrooms  
Crop management practices  
Packaging and marketing of mushrooms.

**Unit-IV-** Mushroom nematodes and their management  
Recycling of spent mushroom substrate  
Post-harvest shelf life of mushroom

## **Project & Practical-III**

**Total Marks: 100**  
**External Marks: 70**  
**Internal Marks: 30**  
**Credits: 6**  
**Pass Percentage: 35%**

### **Practical:**

- Methodology of substrate pre treatment
- Preparation and composting of substrate
- Tissue culture, Master Culture and spawn preparation techniques
- Growth Studies in liquid medium

### **Project:**

**Max Marks: 50**

### **References**

- (1) Acharya K , Roy A and Sarkar J ( 2020) Mushroom Cultivation Technology. Techno World, New Delhi
- (2) Thakur T and Thakur M P (2015) Production Techniques of Tropical Mushrooms.NirmalPublications,New Delhi.
- (3) Aneja K R and Mehrotra RS (2015) An Introduction to Mycology. New Age International Publishers,New Delhi