

JSS COLLEGE FOR ARTS, COMMERCE AND SCIENCE
(AUTONOMOUS)OOTY ROAD, MYSURU- 25
POST GRADUATE DEPARTMENT OF BOTANY

M.Sc., Degree----- Semester Examination May/June-20--

Course/Paper:

Course/Paper Code.....

Time: 3 Hrs.

Max Marks: 100

Instructions: 1) Answer all questions.

2) Draw neat and labelled diagrams wherever necessary.

BOTANY SKILL ENHANCEMENT COURSE

SCHEME OF EXAMINATION/ASSESSMENT THEORY/ PRACTICAL EXAM

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|---------------------------------|----|
| • FIELD VISIT/ WORK | 50 |
| • VIVA VOCE EXAMINATION | 30 |
| • PRACTICAL SPECIMEN SUBMISSION | 20 |

Mushroom Culture Technology

(Credits: Theory 2, Practical Training/ Field visit -4)

THEORY (Lectures: 30)

Unit 1: introduction, history. Nutritional and medicinal value of edible mushrooms, Poisonous mushrooms. Types of edible mushrooms available in India - *Volvariella volvacea*, *Pleurotus citrinopileatus*, *Agaricus bisporus*.

Unit 2: Cultivation technology: infrastructure: Substrates (locally available), polythene bag, vessels, inoculation hook, inoculation loop, low cost stove, sieves, culture rack, mushroom unit (thatched house) water sprayer, tray, small polythene bag. Pure culture: Medium, sterilization, preparation of spawn, multiplication. Mushroom bed preparation · paddy straw, sugarcane trash, maize straw, banana leaves. Factors affecting the mushroom bed preparation· Low cost technology, Com posting technology in mushroom production.

Unit 3: storage and nutrition: short term storage (refrigeration up to 24 hrs.) long term storage (canning, pickles, papads). Drying, storage in salt solutions. Nutrition, proteins- amino acids, mineral elements nutrition- carbohydrates, crude fibre content, vitamins.

Unit 4: Food Preparation: Types of foods prepared from mushroom. Research Centres- National level and Regional level Cost benefit ratio. Marketing in India and abroad, Export Value.

Practical/ Training/Field visit Based on Theory paper

Suggested Readings

1. Marinmthu, T. Krishnamoortlw. A.S. Sivaprakasam, K. and Jayarajan R (1991) Oyster Mushrooms. Department of Plant Pathology. Tamil Nadu Agricultural University, Coimbatore.
2. Swaminathan, M. (1990) Food and Nutrition. Bappco, the Bangalore printing and Publishing Co. Ltd., No. 88, Mysore Road, Bangalore · 560018.
3. Tewarl, Pankaj Kapoor. S.C., (1988). Mushroom cultivation. Mittal Publications, Delhi.
4. Nita Dahl (1984-1988) hand book of Mushrooms, II Edition, Vol. I & Vol. 11.