

SEMESTER IV**5 Papers****Total 100 x 5 = 500 Marks****I. SKILL ENHANCEMENT COURSE SEC 2:**

(Credits: Theory-02)

Marks : 100 (ESE: 3Hrs)=100

Pass Marks: Th ESE = 40

*Instruction to Question Setter for**End Semester Examination (ESE):*

There will be two group of questions. **Group A is compulsory** and will contain three questions. **Question No.1 will be very short answer type** consisting of ten questions of 1 mark each. **Question No.2 & 3 will be short answer type** of 5 marks. **Group B will contain descriptive type** six questions of 20 marks each, out of which anyfour are to answer.

Note: There may be subdivisions in each question asked in Theory Examinations.

MUSHROOM CULTURE TECHNOLOGY**Theory: 30 Lectures****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.

(5 Lectures)**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, Composting technology in mushroom production.

(12 Lectures)**Unit 3:Storage and nutrition :**

Short-term storage (Refrigeration - upto 24 hours) Long term Storage (canning, pickles, papads), drying, storage in salt solutions. Nutrition - Proteins - amino acids, mineral elements nutrition - Carbohydrates, Crude fibre content - Vitamins. **(8 Lectures)**

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. **(5 lectures)**

Reference Books:

- Marimuthu, T. Krishnamoorthy, A.S. Sivaprakasam, K. and Jayarajan. R (1991) Oyster Mushrooms, Department of Plant Pathology, Tamil Nadu Agricultural University, Coimbatore.
- Swaminathan, M. (1990) Food and Nutrition. Bappco, The Bangalore Printing and Publishing Co. Ltd., No. 88, Mysore Road, Bangalore - 560018.
- Tewari, Pankaj Kapoor, S.C., (1988). Mushroom cultivation, Mittal Publications, Delhi.
- Nita Bahl (1984-1988) Hand book of Mushrooms, II Edition, Vol. I & Vol. II.