



VIDYASAGAR UNIVERSITY

Midnapore

Community College Centre

National Skill Qualification Framework (NSQF)

A UGC sponsored Scheme

for

Certificate Course in “Mushroom Cultivation and Processing”



VIDYASAGAR UNIVERSITY

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Community College Centre under NSQF, UGC

Certificate Course on 'Mushroom Cultivation and Processing'

SYLLABUS

Duration: 06 Months

3 Theoretical Papers of 50 marks each : 150 Marks

Paper I: General Idea about Mushroom (4 Credits)

Paper II: Cultivation (4 Credits)

Paper III: Processing (4 Credits)

3 Practical Papers of 100 marks each : 300 Marks

Paper IV: Idea about Mushroom and its Identification (6 Credits)

Paper V: Cultivation of Mushroom (6 Credits)

Paper VI: Assignment and Field Visit (6 Credits)

Theoretical Papers: 300 Marks

Paper I: General Idea about Mushroom 4 Credits

Types of Mushroom; Button mushroom, Oyster mushroom, Paddy straw mushroom; Nutritional and Medicinal Values of Mushrooms; Production and Marketing of Mushrooms: Global and National Scenario;

Paper II: Cultivation 4 Credits

Compost preparation; Spawning; Casing; Mushroom Culture Preparation and Preservation Techniques; Mushroom Culture Preparation and Preservation Techniques; Spawn Production Technology; Raw Materials and Formulations of Compost for White Button Mushroom; Methods of Compost Preparation for White Button Mushroom (*Agaricus bisporus*); Farm Design for Commercial Button Mushroom Cultivation; Crop Management of White Button Mushroom (*Agaricus bisporus*); Post Composting Supplementation for High Yield of White Button Mushroom; Growth Regulators for Mushroom Yield Enhancement; Quality Traits in

Cultivation Mushrooms and Consumer Acceptability; Economics of Button Mushroom Cultivation under Environment Controlled Conditions; Cultivation Technology of Summer White Button Mushroom (*Agaricus bitorquis*); Oyster Mushroom Cultivation; Economics of Oyster Mushroom Cultivation; Cultivation of Paddy Straw Mushroom (*Volvariella volvacea*); Competitor Moulds and Diseases in Mushroom Production and Their Management; Biology and Management of Insect Pests and Mites of Mushrooms; Nematode Pests of Mushrooms and Their Management; Recycling of Spent Mushroom Substrate; Postharvest Handling of Fresh Mushrooms; Cultivation of Shiitake (*Lentinula edodes*); Cultivation of Specialty Mushrooms – *Auricularia*, *Flammulina*, *Calocybe* and *Agrocybe*; Cultivation of Medicinal Mushroom – *Ganoderma lucidum*; Round the Year Cultivation of Mushrooms;

Paper III: Processing

4 Credits

Harvesting; Drying; Freezing; Sterilization; Canning; Pickling Mushrooms – Value Added Products; Art of Mushroom cooking. Idea of startup and entrepreneurship on mushroom processing. Idea about quality control of mushroom production.

Practical papers:

100 x 3 = 300 marks

Paper IV: Idea about Mushroom and its Identification

6 Credits

Idea about Different types of Mushrooms, Media, Sterilization process, Basic Instruments. Microscopic observations. Identification.

Paper V: Cultivation of Mushroom

6 Credits

Preparation of mushroom bed. Cultivation process of Paddy straw mushroom; White button mushroom; Oyster mushroom.

Paper VI: Assignment and Field Visit

6 Credits

Assignment and Field visit (Visit to industry/ institute/ forest (for identification of different wild mushrooms) and preparation of report).