



# SAIVA BHANU KSHATRIYA COLLEGE

(Affiliated to Madurai Kamaraj University)

ARUPPUKOTTAI - 626101

## NON – MAJOR ELECTIVE –BOTANY FOR CHEMISTRY MAJOR

### SYLLABUS

#### NME-BOTANY THEORY PAPER-I

<b>Department: ANCILLARY BOTANY</b>	
<b>Year: NOVEMBER/ DECEMBER OF EVERY YEAR</b>	<b>Semester: V (ODD)</b>
<b>Subject Name: Mushroom Cultivation</b>	<b>Subject Code: SBYJN51</b>

Subject	Instructions		Examination		
	Hours/Week	Credits	Marks		
NME-BOTANY THEORY PAPER-I			Internal Assessment	Board Examination	Total
MushroomCultivation	2Hrs	2	25	75	100

Course Objectives	
On successful completion of the course the students will be able to	
1	• Understand the Historical Background and Current status of Mushroom Cultivation
2	• Know the Edible and Poisonous Mushroom
3	• Cultivate three types of edible mushrooms.
4	• Understand the utility of plant waste and animal waste.
5	• Develop the skills of spawn production and mushroom recipe

Unit No.	Content
1	<b>Unit I</b> <ul style="list-style-type: none"><li>• Historical background, Distribution of edible mushroom in India Present status of mushroom cultivation in India. General characters of Mushroom.</li></ul>
2	<b>Unit II</b> <ul style="list-style-type: none"><li>• Edible mushroom, Non edible mushroom. Nutritional value and importance of mushrooms. Mushrooms as Medicine, Recipes of mushroom.</li></ul>
3	<b>Unit III</b> <ul style="list-style-type: none"><li>• Spawn production methods, factors affecting spawn production – storage of spawn.</li></ul>
4	<b>Unit IV</b> <ul style="list-style-type: none"><li>• Substrates used in mushroom cultivation. Cultivation methods and Harvesting. Ex : Button mushroom and Milky mushroom</li></ul>
5	<b>Unit V</b> <ul style="list-style-type: none"><li>• Cultivation Methods and Harvesting of Oyster mushroom - Ganoderma, Pests and diseases affecting mushroom and their control measures.</li></ul>

<b>Course Outcome</b>	
<b>Students should able to</b>	
CO1	<ul style="list-style-type: none"> <li>Understand the Historical Background of Mushroom, Present Status of Mushroom Cultivation in India and Distribution of Edible Mushroom in India</li> </ul>
CO2	<ul style="list-style-type: none"> <li>Know General Characters of Mushroom, Edible Mushroom and Non –Edible Mushroom, Nutritional Value, Medicinal Value and Importance of Mushroom, Recipes of Mushroom and the Importance Of Ganoderma,</li> </ul>
CO3	<ul style="list-style-type: none"> <li>Know the Preparation and Storage of Spawn and Substratum Storage of Spawn</li> </ul>
CO4	<ul style="list-style-type: none"> <li>Know the Cultivation Methods and Harvesting of Button Mushroom and Milky Mushroom and Oyster Mushroom.</li> </ul>
CO5	<ul style="list-style-type: none"> <li>Understand the Different Pests and Disease affecting Mushroom and their Control Measures.</li> </ul>

#### **REFERENC BOOKS**

- 1) Nita Bahl., 1998. Hand Book on Mushrooms. Oxford & I B H, Publishers, New Delhi.
- 2) Muthusamy, A.D &Yesuraju., 1999. Mushroom culture. TNAU Publication. Madurai.
- 3) Suman, B.C &V.P.Sharma ., 2005. Mushroom cultivation and uses „Agrobios (India) Jodhpur.
- 4) Kumarsesan.K., 2007. Biotechnology, Saras Publications, Nagercoil.

# **NME-BOTANY THEORY PAPER-II**

<b>Department: ANCILLARY BOTANY</b>	
<b>Year: APRIL/MAY OF EVERY YEAR</b>	<b>Semester: VI (EVEN)</b>
<b>Subject Name: Plant utility and Exploitation</b>	<b>Subject Code: SBYJN61</b>

Subject	Instructions		Examination		
NME-BOTANY THEORY PAPER-II Plant utility and Exploitation	Hours/Week	Credits	Marks		
	2Hrs	2	Internal Assessment	Board Examination	Total
			25	75	100

Course Objectives	
On successful completion of the course the students will be able to	
1	<ul style="list-style-type: none"> <li>Know the Origin of cultivated plants, Vavilov's, centre's of origin.</li> </ul>
2	<ul style="list-style-type: none"> <li>Understand the Plants as sources of food, fodder, fibres, spices, Beverages, Drugs, narcotics, insecticides, timber, gums, resins and dyes, Latex, cellulose, starch and perfumes</li> </ul>
3	<ul style="list-style-type: none"> <li>Know the Importance of Ethno botany in India context, Energy plantation, Botanical gardens and Herbaria.</li> </ul>

Unit No.	Content
1	<b>Unit I</b> <ul style="list-style-type: none"> <li>Origin of cultivated plants, Vavilov's, centre's of origin.</li> </ul>
2	<b>Unit II</b> <ul style="list-style-type: none"> <li>Plants as sources for food, fodder, fibres, spices, Beverages.</li> </ul>
3	<b>Unit III</b> <ul style="list-style-type: none"> <li>Drugs, narcotics, insecticides, timber, gums, resins and dyes.</li> </ul>
4	<b>Unit IV</b> <ul style="list-style-type: none"> <li>Plant as sources of Latex, cellulose, starch and their products, perfumery</li> </ul>
5	<b>Unit V</b> <ul style="list-style-type: none"> <li>Importance of Ethno botany in India context. Energy plantation, Botanical gardens and Herbaria.</li> </ul>

Course Outcome	
Students should able	
CO1	<ul style="list-style-type: none"> <li>To Know the Origin of Cultivated Plants, Vavilov's Centre's of Origin.</li> </ul>
CO2	<ul style="list-style-type: none"> <li>To Understand the Plants as Source for Food, Fodder, Fibres, Spices, Beverages Drugs, Narcotics, Insecticides, Timber, Gums, Resin, Dyes, Latex, Cellulose, Starch and Perfume.</li> </ul>

Unit No.	Content
CO3	<ul style="list-style-type: none"> <li>To Know the Importance of Ethno Botany in India Context</li> </ul>
CO4	<ul style="list-style-type: none"> <li>To Understand the Concepts of Energy Plantation</li> </ul>
CO5	<ul style="list-style-type: none"> <li>To Understand the Importance of Botanical Gardens and Herbaria</li> </ul>

#### **REFERENC BOOKS**

1. Hill, A.F., 1983. Economic Botany. Tata McGraw-Hill Publishing company Ltd., New Delhi.
2. Chopra., et al., 1956. Glossary of India Medicinal plants. CSIR, New Delhi.
3. Pandey, B.P., 2000. Economic Botany. S. Chand & Co., Ltd.. New Delhi.
4. Pandey, B.P., 2007. Taxonomy of Angiosperms. S.Chand& Co., Ltd., New Delhi.

