**Annexure – I (Mushroom Cultivation)**

**Detail of Theory Syllabus**

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| SL NO | CONTENT | DETAILS |
| 1 | Introduction | * Study the Scope & importance of Mushroom cultivation in India
* Understand the usage & market demand for mushroom
* Understand the Role of a ‘Mushroom Grower’
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| 2 | Prepare & pasteurize the compost necessary to cultivate mushrooms | * Select appropriate materials to prepare the compost- base materials from various agricultural by-products, materials rich in cellulose
* impart proper physical structure to the substrate, ensure adequate aeration during composting, and add bulk to the compost
* select & apply chemicals for mineral deficiency rectification and stabililization
* Identify different types compost- natural & synthetic, formulation of different compost
* Select composting methods- short, long; indoor, outdoor
* Undertake compost rotation and ensure adequate moisture, carbohydrate, gas exchange etc
* Pasteurize the compost to kill insects, nematodes, pest fungi, or other pests
* Understand good compost attributes
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| 3 | Select commercially important species of mushroom and design appropriate site to cultivate mushrooms | * Select commercially important type of mushroom based on market’s demand, climatic conditions of the farm, growing season, investments, etc.
* Procure mushroom spawns from authentic source
* Select appropriate mushroom cultivation site with proper drainage & water supply facility
* Design and construct mushroom farm according to the growing conditions required for different kinds of mushrooms
* Understand different types of mushroom growing facilities and fixtures
* Understand types, components and their specifications of bulk chamber conducive for good quality mushroom growing
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| 4 | Undertake disease control and pest management activities, casing and pinning for mushroom cultivation | * Inspect mushroom bags or beds carefully for early detection of pests and diseases
* Control diseases and exercise preventive care- spray pesticides/ fungicides etc
* pasteurize the mushroom farm to remove nematode in mushroom cultivation
* Prepare casing soil to hold moisture
* Promote the formation of primordia, or mushroom pins by supplying water to the mycelium
* detect the earliest formation of recognizable mushrooms from mycelium
* case at a regular interval after harvesting or cover the holes after mushroom picking
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| 5 | Undertake harvest & post-harvest procedures of mushrooms | * Assess the maturity of mushroom and harvest periods
* Apply good harvesting practices
* Cut, clean and dry harvested mushroom using approved procedures
* sort and grade the harvests as per required quality specifications
* Store, pack, label and transport produce
* Record information, e.g. quality, quantity, type, expenditure incurred in operation, etc. in appropriate registers, record book and logs
* Utilize spent mushroom substrate in organic farming, vermicomposting, bioremediation of contaminated soil etc
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**Detailed of Practical Syllabus**

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| SL NO | CONTENT | DETAILS |
| 1 | **Composting in Mushroom cultivation**  | * Role of composting in Mushroom cultivation
* Appropriate materials to prepare different types of compost
* Methods of composting – preparation and pasteurization
* Determination of quality of compost
* Hazards & risks associated with composting and how to control injury to self
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| 2 | **Selection of types of Mushroom and Sites**  | * Selection of important types of Mushroom
* Selection of appropriate Mushroom cultivation sites
* Design and construction of Mushroom farm
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| 3 | **Mushroom cultivation - methods**  | * Selection of commercially important types of Mushroom
* Purpose and process of using spawn and selection of correct spawn
* Different types of Mushroom growing facilities and fixtures
* Package of practices of White button Mushroom and Oyster Mushroom
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| 4 | **Disease control and pest Management**  | * Inspection of Mushroom bags or beds for early detection of pests and diseases
* Using sterilized casing to control nematodes
* Spraying fungicide after casing to check dry bubble
* Spraying insecticide for control of mites
* Use of caustic chemicals top keep rodents away
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| 5 | **Harvesting of Mushroom**  | * Identification of right stage of Mushroom
* Methods of harvesting
* Using approved cutting techniques for harvesting
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| 6 | **Packaging storing and grading of Mushroom & post harvest procedures**  | * Sorting the Mushrooms on the size and quality
* Packaging Mushrooms with labels containing month and year of harvesting, quantity and type of Mushroom etc
* Use of spent Mushroom in vermin-composting and in organic farming
* Preparation of value added products of Mushroom

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**Detail of Employability Skills Syllabus**

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| Sl. No. | Content | Details |
| 1. | English Literacy & Communication Skills | Accentuation (mode of pronunciation) on simple words, Diction (use of word and speech) Transformation of sentences, Voice change, Change of tense, Spellings. Reading and understanding simple sentences about self, work and environment. Construction of simple sentences, Writing simple English.Speaking with preparation on self, on family, on friends, classmates, on know, picture reading gain confidence through role-playing . Taking messages, passing messages on and filling in message forms Greeting and introductions office hospitality, Resumes or curriculum vita essential parts, letters of application reference to previous communication.Communication and its importance, Principles of Effective communication, Types of communication – verbal, non verbal, written, email, talking on phone. Non verbal communication –characteristics, components-Para-language, Body – language, Barriers to communication and dealing with barriers.Handling nervousness/ discomfort. Self awareness, Importance of Commitment, Ethics and Values, Ways to Motivate Oneself, Personal Goal setting and Employability Planning. Manners, Etiquettes, Dress code for an interview, Do’s & Don’ts for an interview, Problem Solving, Confidence Building, Attitude. |
| 2. | I.T. Literacy | Introduction, Computer and its applications, Hardware and peripherals, Switching on-Starting and shutting down of computer.Basics of Operating System, WINDOWS, The user interface of Windows OS, Create, Copy, Move and delete Files and Folders, Use of External memory like pen drive, CD, DVD etc, Use of Common applications.Basic operating of Word Processing, Creating, opening and closing Documents, use of shortcuts, Creating and Editing of Text, Formatting the Text, Insertion & creation of Tables. Printing document.Basics of Excel worksheet, understanding basic commands, creating simple worksheets, understanding sample worksheets, use of simple formulas and functions, Printing of simple excel sheetsInternet, Concept of Internet (Network of Networks),Meaning of World Wide Web (WWW), Web Browser, Web Site, Web page and Search Engines. Accessing the Internet using Web Browser, Downloading and Printing Web Pages, Opening an email account and use of email. Social media sites and its implication. Information Security and antivirus tools, Do’s and Don’ts in Information Security, Awareness of IT – ACT, types of cyber crimes. |
| 3. | Entrepreneurship Skills | Entrepreneurship vs. management, Entrepreneurial motivation. Performance & Record, Role & Function of Entrepreneur, Qualities of a good Entrepreneur, SWOT and RiskAnalysis. Concept & application of PLC, Sales &distribution Management. Different Between Small Scale & Large Scale Business, Market Survey, Method of marketing, Publicity and advertisement, Marketing Mix.Preparation of Project. Role of Various Schemes andInstitutes for self-employment i.e. DIC, SIDA, SISI, NSIC, SIDO, Idea for financing/ non financing support agencies to familiarizes with the Policies /Programmes & procedure & the available scheme.Project formation, Feasibility, Legal formalities i.e.,Shop Act, Estimation & Costing, Investment procedure – Loan procurement – Banking Processes. |
|  | Productivity & Quality Tools | Definition, Necessity, Meaning of GDP.Personal / Workman – Incentive, Production linked Bonus, Improvement in living standard. Industry Nation.Skills, Working Aids, Automation, Environment, Motivation. How improves or slows down.Banking processes, Handling ATM, KYC registration, safe cash handling, Personal risk and Insurance.Meaning of quality, Quality characteristic. Definition, Advantage of small group activity, objectives of quality Circle, Roles and function of Quality Circles in Organization, Operation of Quality circle. Approaches to starting Quality Circles, Steps for continuation Quality Circles. Idea of ISO 9000 and BIS systems and its importance in maintaining qualities. Purpose of Housekeeping, Practice of good Housekeeping. Basic quality tools with a few examples |
|  | Occupational safety, health and Environment Education & Labour Welfare Legislation | Introduction to Occupational Safety and Health importance of safety and health at workplace. Basic Hazards, Chemical Hazards, Mechanical Hazards, Electrical Hazards, Thermal Hazards.Occupational health, Occupational hygienic, Occupational Diseases/ Disorders & its prevention.Basic principles for protective equipment.Accident Prevention techniques – control of accidents and safety measures.Care of injured & Sick at the workplaces, First-Aid & Transportation of sick person.Benefits guaranteed under various acts- Factories Act, Apprenticeship Act, Employees State Insurance Act (ESI), Payment Wages Act, Employees Provident Fund Act, The Workmen’s compensation Act. |