**Annexure – I (Fruits and Vegetables Product Manufacturer)**

**Detail of Theory Syllabus**

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| SL NO | CONTENT | DETAILS |
| 1 | Introduction | Definition and scope of preservation.  Different types of spoilages in fresh fruits and vegetables.  General principles and methods of food preservation. |
| 2 | Definition of Fruits and vegetables, | Difference in  between fruits and vegetable, |
| 3 | Selection of raw materials including fruits and vegetables | Selection of raw materials including fruits and vegetables for Preparation of various products. Spices and other constituents, their properties, condiments and other additives and ingredients,  and their flavouring and preservative properties. |
| 4 | Study of various equipment | Study of various equipment usage,  care/maintenance and precautions. |
| 5 | Storage of fresh fruits and vegetable. | Storage of fresh fruits and vegetable. Methods and containers used in fresh fruits and vegetable preservation |
| 6 | Technology of extraction of juices from different types of fruits. | Technology of extraction of juices from different types of fruits. Definition of Preservatives-types of preservatives commonly used in food industry limits of usage of preservatives |
| 7 | Fruit beverages: Squashes, syrups, nectars, RTS, crushes, cordial etc. | Fruit beverages: Squashes, syrups, nectars, RTS, crushes, cordial etc. |
| 8 | Tomato products: | Tomato products: Technology of manufacture of  tomato products. |
| 9 | Sun drying & dehydration | Sun drying & dehydration and its merits and  demerits. Principles involved preservation by drying method. Treatment prior to drying. |
| 10 | Jams, Jellies and marmalades  preparation,  . | Jams, Jellies and marmalades: selection,  preparation, production and preservation.  Difference in between jam and jelly. |
| 11 | Definition of preserves, candied fruits, glazed fruits, crystallized fruits- | Definition of preserves, candied fruits, glazed fruits, crystallized fruits- methods of preparation of these. |
| 12 | Canning and bottling- | Canning of fruits and  vegetables- principles, procedure and steps  involved- care in handling of common available  fruits and vegetables in the region. |
| 13 | Study of Frozen Fruits and Vegetables, Blanching and Freezing. | Study of Frozen Fruits and Vegetables, Blanching  and Freezing. |
| 14 | Pickles, chutneys and sauces, | Pickles, chutneys and sauces, Different types of pickles, Methods of preparation curing techniques,  defects and remedies. |
| 15 | Study of Food safety Standards: | HACCP, ISO 22000, GMP, and FSSAI.  Importance of personal Hygiene, Cleaning &  Sanitary standards in Fruits and Vegetable  preservation. Good Handling Processes (GHP),  Traceability aspects of processed product. |
| 16 | Study of various types of containers like Glass, Tin materials. | Study of various types of containers like Glass, Tin merits and demerits of each-scope for new types of  containers/ packaging materials, such as plastic  pouches, tetra pack, PET bottle and cartons.  Understanding the label its importance, and  labelling requirements |

**Detail of Practical Syllabus**

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| SL NO | CONTENT | DETAILS |
| 1 | Spoilage of fruits and vegetables | Identify the Spoilage of fruits and vegetables |
| 2 | Identifications of Fruits and  vegetables. | Identifications of Fruits and  vegetables. |
| 3 | Identification of spices and food  additives | Identification of spices and food  additives used in fruits and  vegetable processing. |
| 4 | Study of common food  processing equipments | Study of common food  processing equipments such as  pulper, sealers, juice extracting  machines, autoclaves, corking  machines etc. |
| 5 | Refrigeration and other methods  for storing perishables | Refrigeration and other methods  for storing perishables |
| 6 | Preparation of Fruit Juice. | Preparation of Fruit Juice.  Preservation of fruits juices with  addition of preservative. |
| 7 | Preparation of common fruit  beverages. | Preparation of common fruit  beverages. Determination of  Acids in fruits and vegetable  products |
| 8 | Preparation of tomato product | Preparation of tomato juices,  puree, sauces, ketchups, soup,  paste, chutney etc |
| 9 | Various methods of drying: | Various methods of drying: sun  drying, cabinet drying and solar  drying. |
| 10 | Preparation of Jam, jelly and  marmalades | Preparation of Jam, jelly and  marmalades |
| 11 | Preparation of preserves, candies,  crystallized and glazed and fruit  bars. | Preparation of preserves, candies,  crystallized and glazed and fruit  bars. |
| 12 | Demonstration of Canning  process in fruits and vegetables | Demonstration of Canning  process in fruits and vegetables  canning industry. Identification of defective cans,  Precautions while consuming the  canned foods. |
| 13 | Freezing | Freezing demonstration on  market sample of frozen fruits  and vegetables |
| 14 | Preparations of different types of  pickles from fruits and vegetables | Preparations of different types of  pickles from fruits and vegetables |
| 15 | Examination of processed products.  Cleaning and maintenance of the  equipments. | Examination of processed products. Cleaning and maintenance of the equipments. Detection of benzoic acid,  sulphur dioxide and KMS in fruits  and vegetable products. |
| 16 | Practical demonstration of  sealing pouching machine. | Practical demonstration of  sealing pouching machine.  Examination of the tetra pack |

**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 sheets  Internet, 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. |