

FOOD PRODUCTION (GENERAL)

COMPETENCY BASED CURRICULUM

(Duration: 2 Yrs.)

APPRENTICESHIP TRAINING SCHEME (ATS)

NSQF LEVEL- 5



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SECTOR – FOOD PROCESSING AND PRESERVATION

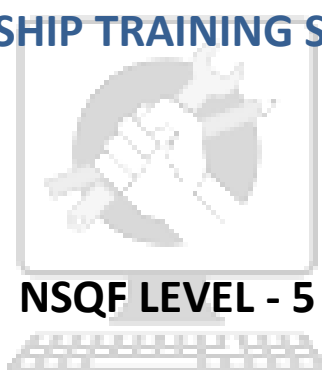


GOVERNMENT OF INDIA
MINISTRY OF SKILL DEVELOPMENT & ENTREPRENEURSHIP
DIRECTORATE GENERAL OF TRAINING

FOOD PRODUCTION (GENERAL)

(Revised in 2018)

APPRENTICESHIP TRAINING SCHEME (ATS)



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Developed By

Ministry of Skill Development and Entrepreneurship
Directorate General of Training
CENTRAL STAFF TRAINING AND RESEARCH INSTITUTE
EN-81, Sector-V, Salt Lake City,
Kolkata – 700 091

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Sl. No.	Name & Designation Sh./Mr./Ms.	Organization	Expert Group Designation
1.	Mr. Arul Mani	Taj Hotel Group, Mumbai (Training)	General Manager
2.	Dr. D.C Sexana	S.L.I.E.T ,Longowal,Punjab (Food Engineering and Tech. Dept)	Professor
3.	Dr. Vikas Nanda	S.L.I.E.T ,Longowal,Punjab (Food Engineering and Tech. Dept)	Professor
4.	Dr. D.S Sogi	Guru Nanak Dev University, Amritsar, Punjab (Department of Food Science and Technology)	Professor
5.	Mr. JeevanJyoti Panda	Govt Polytechnic, Berhampur, Odisha (H.M&C.T)	Lecturer
6.	Mr. SriyaSumanPatro	Govt Polytechnic, Berhampur, Odisha (Food Tech. and Engg.)	Lecturer
7.	Mrs. JasleenKaur	Lovely Professional University, Jalandhar, Punjab (Food Technology and Nutritions)	Assistant Professor,
8.	Ms. VarkhaGrewal	Cremica food Industries Ltd, Phullar, Jalandhar, Punjab	Assistant Manager
9.	Mr. Sachin Kumar	R.V.T.I, Allahabad (Catering & Hospitality)	Vocational Instructor
10.	Mr. Sandeep Kumar	I.T.I Nabha, Punjab (Hotel Management)	Worked as Guest Faculty
11.	DrNeeraj	N.I.F.T.E.M, Sonipat, Haryana (Food Technology)	Assistant Professor,
12.	Mr. Kuldeep Singh Sidhu	I.T.C Ltd, Kolkata (Food Tech.)	Assistant Manager
13.	Mr. Pargat Singh	Rich Graviss products Pvt. Ltd, Kala- Amb, DisttSirmour, Himachal Pradesh	Senior Quality Executive
14.	Mr. SaurabhSiddhu	HRD AIH&TM-ITDC, C-12/A, Qutub Institutional Area, New Delhi- 110016.	Chef
15.	Mr. PradeepAtri	JW Marriott, Senapati Bapat Road , Pune	Senior Event Manager

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1.1 Apprenticeship Training Scheme under Apprentice Act 1961

The Apprentices Act, 1961 was enacted with the objective of regulating the programme of training of apprentices in the industry by utilizing the facilities available therein for imparting on-the-job training. The Act makes it obligatory for employers in specified industries to engage apprentices in designated trades to impart Apprenticeship Training on the job in industry to school leavers and person having National Trade Certificate (ITI pass-outs) issued by National Council for Vocational Training (NCVT) to develop skilled manpower for the industry. There are four categories of apprentices namely; **trade apprentice, graduate, technician and technician (vocational) apprentices.**

Qualifications and period of apprenticeship training of **trade apprentices** vary from trade to trade. The apprenticeship training for trade apprentices consists of basic training followed by practical training. At the end of the training, the apprentices are required to appear in a trade test conducted by NCVT and those successful in the trade tests are awarded the National Apprenticeship Certificate.

The period of apprenticeship training for graduate (engineers), technician (diploma holders and technician (vocational) apprentices is one year. Certificates are awarded on completion of training by the Department of Education, Ministry of Human Resource Development.

1.2 Changes in Industrial Scenario

Recently we have seen huge changes in the Indian industry. The Indian Industry registered an impressive growth during the last decade and half. The number of industries in India have increased manifold in the last fifteen years especially in services and manufacturing sectors. It has been realized that India would become a prosperous and a modern state by raising skill levels, including by engaging a larger proportion of apprentices, will be critical to success; as will stronger collaboration between industry and the trainees to ensure the supply of skilled workforce and drive development through employment. Various initiatives to build up an adequate infrastructure for rapid industrialization and improve the industrial scenario in India have been taken.

1.3 Reformation

The Apprentices Act, 1961 has been amended and brought into effect from 22nd December, 2014 to make it more responsive to industry and youth. Key amendments are as given below:

- Prescription of number of apprentices to be engaged at establishment level instead of trade-wise.

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- Establishment can also engage apprentices in optional trades which are not designated, with the discretion of entry level qualification and syllabus.
- Scope has been extended also to non-engineering occupations.
- Establishments have been permitted to outsource basic training in an institute of their choice.
- The burden of compliance on industry has been reduced significantly.



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2.1 GENERAL

Directorate General of Training (DGT) under Ministry of Skill Development & Entrepreneurship offers range of vocational training courses catering to the need of different sectors of economy/ Labour market. The vocational training programmes are delivered under aegis of National Council of Vocational Training (NCVT). Craftsman Training Scheme (CTS) and Apprenticeship Training Scheme (ATS) are two pioneer programmes of NCVT for propagating vocational training.

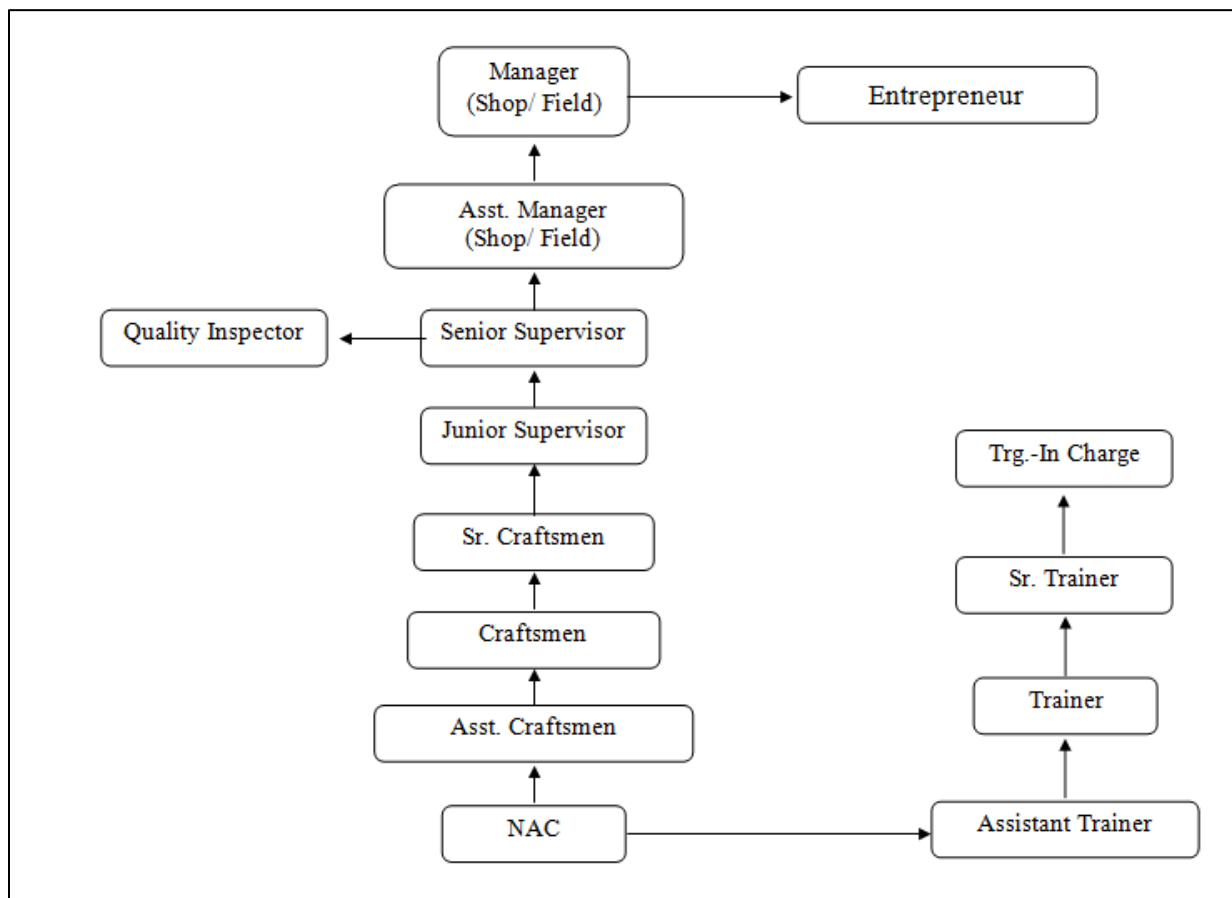
FOOD PRODUCTION (GENERAL) trade under ATS is one of the most popular courses delivered nationwide through different industries. The course is of two years (02 Blocks) duration. It mainly consists of Domain area and Core area. In the Domain area Trade Theory & Practical impart professional - skills and knowledge, while Core area - and Employability Skills imparts requisite core skills & knowledge and life skills. After passing out the training programme, the trainee is being awarded National Apprenticeship Certificate (NAC) by NCVT having worldwide recognition.

Broadly candidates need to demonstrate that they are able to:

- Read & interpret technical parameters/document, plan and organize work processes, identify necessary materials and tools;
- Perform task with due consideration to safety rules, accident prevention regulations and environmental protection stipulations;
- Apply professional skill, knowledge, core skills & employability skills while performing jobs and solve problem during execution.
- Check the job/assembly as per drawing for functioning, identify and rectify errors in job/assembly.
- Document the technical parameters related to the task undertaken.

2.2 CAREER PROGRESSION PATHWAYS:

- Indicative pathways for vertical mobility.



2.3 COURSE STRUCTURE:

Table below depicts the distribution of training hours across various course elements during a period of two years (*Basic Training and On-Job Training*): -

Total training duration details: -

Time (in months)	1-3	4-12	13-15	16-24
Basic Training	Block – I	-----	Block – II	-----
Practical Training (On - job training)	----	Block – I	-----	Block – II

A. Basic Training

For 02 yrs. Course (Non-Engg.): - **Total 03 months:** 03 months in 1styr. only

For 01 yr. Course (Non-Engg.): - **Total 03 months:** 03 months in 1st yr.

Sl. No.	Course Element	Total Notional Training Hours
		For 02 yrs. course
1	Professional Skill (Trade Practical)	270
2	Professional Knowledge (Trade Theory)	120
3	Employability Skills	110
	Total (including Internal Assessment)	500

B. On-Job Training:-

For 02 yrs. Course (Non-Engg.) :- (**Total: 9 months in 1st yr.+12months in 2nd yr.**)

Notional Training Hours for On-Job Training: 3640 Hrs.

C. Total training hours:-

Duration	Basic Training	On-Job Training	Total
For 02 yrs. Course (Non-Engg.)	500 hrs.	3640 hrs.	4140 hrs.
For 01 yr. Course (Non-Engg.)	500 hrs.	2080 hrs.	2580 hrs.

2.4 ASSESSMENT & CERTIFICATION:

The trainee will be tested for his skill, knowledge and attitude during the period of course and at the end of the training programme as notified by Govt of India from time to time. The Employability skills will be tested in first two semesters only.

a) The **Internal assessment** during the period of training will be done by **Formative assessment method** by testing for assessment criteria listed against learning outcomes. The training institute have to maintain individual *trainee portfolio* as detailed in assessment guideline. The marks of internal assessment will be as per the template (Annexure – II).

b) The final assessment will be in the form of summative assessment method. The All India Trade Test for awarding NAC will be conducted by NCVT on completion of course as per guideline of Govt of India. The pattern and marking structure is being notified by govt of India from time to time. **The learning outcome and assessment criteria will be basis for setting question papers for final assessment. The examiner during final examination will also check individual trainee's profile as detailed in assessment guideline before giving marks for practical examination.**

2.4.1 PASS REGULATION

The minimum pass percent for Practical is 60% & minimum pass percent for Theory subjects 40%. The candidate pass in each subject conducted under all India trade test.

2.4.2 ASSESSMENT GUIDELINE

Appropriate arrangements should be made to ensure that there will be no artificial barriers to assessment. The nature of special needs should be taken into account while undertaking assessment. Due consideration should be given while assessing for team work, avoidance/reduction of scrap/wastage and disposal of scarp/wastage as per procedure, behavioral attitude, sensitivity to environment and regularity in training. The sensitivity towards OSHE and self-learning attitude are to be considered while assessing competency.

Assessment will be evidence based comprising the following:

- Job carried out in labs/workshop
- Record book/ daily diary
- Answer sheet of assessment
- Viva-voce
- Progress chart
- Attendance and punctuality
- Assignment
- Project work

Evidences of internal assessments are to be preserved until forthcoming semester examination for audit and verification by examination body. The following marking pattern to be adopted while assessing:

Performance Level	Evidence
(a) Weightage in the range of 60 -75% to be allotted during assessment	
For performance in this grade, the candidate with occasional guidance and showing due regard for safety procedures	• Demonstration of good skill in the use of hand tools, machine tools and workshop equipment

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and practices, has produced work which demonstrates attainment of an acceptable standard of craftsmanship.	• Below 70% tolerance dimension/accuracy achieved while undertaking different work with those demanded by the component/job/set standards. • A fairly good level of neatness and consistency in the finish • Occasional support in completing the project/job.
(b) Weightage in the range of above 75% - 90% to be allotted during assessment	
For this grade, the candidate, with little guidance and showing due regard for safety procedures and practices, has produced work which demonstrates attainment of a reasonable standard of craftsmanship.	• Good skill levels in the use of hand tools, machine tools and workshop equipment • 70-80% tolerance dimension/accuracy achieved while undertaking different work with those demanded by the component/job/set standards. • A good level of neatness and consistency in the finish • Little support in completing the project/job
(c) Weightage in the range of above 90% to be allotted during assessment	
For performance in this grade, the candidate, with minimal or no support in organization and execution and with due regard for safety procedures and practices, has produced work which demonstrates attainment of a high standard of craftsmanship.	• High skill levels in the use of hand tools, machine tools and workshop equipment • Above 80% tolerance dimension/accuracy achieved while undertaking different work with those demanded by the component/job/set standards. • A high level of neatness and consistency in the finish. • Minimal or no support in completing the project.

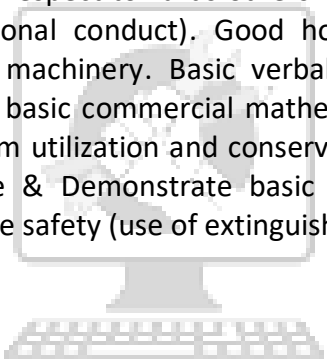
Brief description of Job roles:

After completion of the Apprenticeship Training in Food Production (General) the trainees will be able to do/perform

Identifying & selecting raw material. Usage of kitchen related equipment. Safely handling food (minimize, damage / loss) while processing. Pre-prep of raw material for cooking. Skilled with all cooking methods. Food presentation & serving at the right temperatures. Knowledge of nutrition & food allergies. Basic usage of computers / tablets. Basic planning & utilization of resources (Raw material, time, manpower). Knowledge & application of HACCP / ISO requirements Personality / Employability Knowledge & Skills. Appropriate Personal Hygiene & Grooming practices. Punctuality & Respect towards others' time. Good interpersonal skills and respect all work colleagues (personal conduct). Good housekeeping of work area. Safety practices while handling tools & machinery. Basic verbal & written communication skills. Practice basic arithmetic including basic commercial mathematics. Wastage – practice Reuse, Recycle and Safe Disposal. Optimum utilization and conservations of natural resources (water, heat, electricity, fuel). Knowledge & Demonstrate basic first aid (in case of emergency). Knowledge & Demonstrate basic fire safety (use of extinguishers)

Reference NCO:

NCO 2015: - 3122.6900



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4. NSQF LEVEL COMPLIANCE

NSQF level for FOOD PRODUCTION (GENERAL) trade under ATS: **Level 5**

As per notification issued by Govt. of India dated- 27.12.2013 on National Skill Qualification Framework total 10 (Ten) Levels are defined.

Each level of the NSQF is associated with a set of descriptors made up of five outcome statements, which describe in general terms, the minimum knowledge, skills and attributes that a learner needs to acquire in order to be certified for that level.

Each level of the NSQF is described by a statement of learning outcomes in five domains, known as level descriptors. These five domains are:

- Process
- Professional knowledge,
- Professional skill,
- Core skill and
- Responsibility.



The Broad Learning outcome of FOOD PRODUCTION (GENERAL) trade under ATS mostly matches with the Level descriptor at Level- 5.

The NSQF level-5 descriptor is given below:

LEVEL	Process required	Professional knowledge	Professional skill	Core skill	Responsibility
Level 5	Job that requires well developed skill, with clear choice of procedures in familiar context.	Knowledge of facts, principles, processes and general concepts, in a field of work or study	A range of cognitive and practical skills required to accomplish tasks and solve problem by selecting and applying basic methods, tools, materials and information.	Desired mathematical skill, understanding of social, political and some skill of collecting and organizing information, communication.	Responsibility for own work and Learning and some responsibility for other's works and learning.

5. GENERAL INFORMATION

Name of the Trade	FOOD PRODUCTION (GENERAL)
NCO - 2015	3122.6900
NSQF Level	Level – 5
Duration of Apprenticeship Training (Basic Training + On-Job Training)	Two years (02 Blocks each of one year duration).
Duration of Basic Training	a) Block –I : 3 months b) Block – II : 3 months Total duration of Basic Training: 6 months
Duration of On-Job Training	a) Block–I: 9 months b) Block–II : 9 months Total duration of Practical Training: 18 months
Entry Qualification	Passed 8th class examination or its equivalent.
Selection of Apprenticeship	The apprentices will be selected as per Apprenticeship Act amended time to time.
Instructors Qualification for Basic Training	As per ITI instructors qualifications as amended time to time for the specific trade.
Infrastructure for basic training	As per related trade of ITI.
Examination	The internal examination/ assessment will be held on completion of each block. Final examination for all subjects will be held at the end of course and same will be conducted by NCVT.
Rebate to Ex-ITI Trainees	01 year
CTS trades eligible for FOOD PRODUCTION (GENERAL) Apprenticeship	1. FOOD PRODUCTION (GENERAL)

Note:

- Industry may impart training as per above time schedule for different block, however this is not fixed. The industry may adjust the duration of training considering the fact that all the components under the syllabus must be covered. However the flexibility should be given keeping in view that no safety aspects is compromised.
- For imparting Basic Training the industry to tie-up with ITIs having such specific trade and affiliated to NCVT.

6.1 GENERIC LEARNING OUTCOME

The following are minimum broad Common Occupational Skills/ Generic Learning Outcome after completion of the FOOD PRODUCTION (GENERAL) course of 02 years duration under ATS.

Block I & II:-

1. Recognize & comply safe working practices, environment regulation and housekeeping.
2. Select and ascertain measuring instrument and measure dimension of components and record data.
3. Explain the concept in productivity, quality tools, and labour welfare legislation and apply such in day to day work to improve productivity & quality.
4. Explain energy conservation, global warming and pollution and contribute in day to day work by optimally using available resources.
5. Explain personnel finance, entrepreneurship and manage/organize related task in day to day work for personal & societal growth.
6. Plan and organize the work related to the occupation.

6.2 SPECIFIC LEARNING OUTCOME**Block – I**

1. Identify Utensils & equipments and chemical and sanitizing agents used for kitchen tools and equipments.
2. Identify spices and herbs
3. Demonstrate cooking methods with specific utensils and explain effect of heat on foods.
4. Prepare chutney and dips by using appropriate machines and kitchen tools.
5. Prepare Indian breads and Tandoor dishes.
6. Prepare basic Indian gravies such as Tomato, Onion, Cashew and Yoghurt.
7. Prepare dishes with veg. gravy.
8. Prepare rice, pulaos, Veg biryanis and daals by using kitchen tools
9. Prepare Indian sweet dishes such as Burfee, Balushahi, Halwas, Gulabjamun, jalabi, Gujias, phirnee and Rasgulla.
10. Prepare different types of regional foods.

Block – II

11. Prepare and explain stocks, soups and sauces by using kitchen tools.
12. Prepare hor d' oeuvres, canapés and sandwiches.
13. Prepare and cook vegetables for European cuisine.

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14. Prepare farinaceous products as spaghetti & macroni.
15. Prepare different types of Regional foods.
16. Prepare and cook rice, beans & pulses, pasta and pasta sauces.
17. Prepare bakery and confectionery products such as breakfast breads, waffles & pancakes, cookies and basic calligraphy for cake decoration.
18. Prepare snacks, pickles, preserve, chutney, sauces and raitha.
19. Explain food safety standards and food adulteration.

NOTE: Learning outcomes are reflection of total competencies of a trainee and assessment will be carried out as per assessment criteria.



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7. LEARNING OUTCOME WITH ASSESSMENT CRITERIA

GENERIC LEARNING OUTCOME	
LEARNING OUTCOMES	ASSESSMENT CRITERIA
1. Recognize & comply safe working practices, environment regulation and housekeeping.	1.1 Follow and maintain procedures to achieve a safe working environment in line with occupational health and safety regulations and requirements.
	1.2 Recognize and report all unsafe situations according to site policy.
	1.3 Identify and take necessary precautions on fire and safety hazards and report according to site policy and procedures.
	1.4 Identify, handle and store / dispose off dangerous/unsalvageable goods and substances according to site policy and procedures following safety regulations and requirements.
	1.5 Identify and observe site policies and procedures in regard to illness or accident.
	1.6 Identify safety alarms accurately.
	1.7 Report supervisor/ Competent of authority in the event of accident or sickness of any staff and record accident details correctly according to site accident/injury procedures.
	1.8 Identify and observe site evacuation procedures according to site policy.
	1.9 Identify Personal Protective Equipment (PPE) and use the same as per related working environment.
	1.10 Identify basic first aid and use them under different circumstances.
	1.11 Identify different fire extinguisher and use the same as per requirement.
	1.12 Identify environmental pollution & contribute to avoidance of same.
	1.13 Take opportunities to use energy and materials in an environmentally friendly manner
	1.14 Avoid waste and dispose waste as per procedure
	1.15 Recognize different components of 5S and apply the same in the working environment.
2. Explain the concept in productivity, quality tools,	2.1 Explain the concept of productivity and quality tools and apply during execution of job.

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and labour welfare legislation and apply such in day to day work to improve productivity & quality.	2.2 Understand the basic concept of labour welfare legislation and adhere to responsibilities and remain sensitive towards such laws.
	2.3 Knows benefits guaranteed under various acts
3. Explain energy conservation, global warming and pollution and contribute in day to day work by optimally using available resources.	3.1 Explain the concept of energy conservation, global warming, pollution and utilize the available resources optimally & remain sensitive to avoid environment pollution.
	3.2 Dispose waste following standard procedure.
4. Explain personnel finance, entrepreneurship and manage/organize related task in day to day work for personal & societal growth.	4.1 Explain personnel finance and entrepreneurship.
	4.2 Explain role of Various Schemes and Institutes 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.
	4.3 Prepare Project report to become an entrepreneur for submission to financial institutions.
5. Plan and organize the work related to the occupation.	5.1 Use documents, drawings and recognize hazards in the work site.
	5.2 Plan workplace/ assembly location with due consideration to operational stipulation
	5.3 Communicate effectively with others and plan project tasks
	5.4 Assign roles and responsibilities of the co-trainees for execution of the task effectively and monitor the same.
SPECIFIC OUTCOME	
<u>Block-I & II (Section:10 in the competency based curriculum)</u>	
<i>Assessment Criteria i.e. the standard of performance, for each specific learning outcome mentioned under block – I & block – II (section: 10) must ensure that the trainee achieves well developed skill with clear choice of procedure in familiar context. Assessment criteria should broadly cover the aspect of Planning (Identify, ascertain, estimate etc.); Execution (perform, illustration, demonstration etc. by applying 1) a range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying basic methods, tools, materials and information 2) Knowledge of facts, principles, processes, and general concepts, in a field of work or study 3) Desired Mathematical Skills and some skill of collecting and organizing information, communication) and Checking/ Testing to ensure functionality during the assessment of each outcome. The assessments parameters must also ascertain that the candidate is responsible for own work and learning and some responsibility for other's work and learning.</i>	

BASIC TRAINING (Block – I)**Duration: (03) Three Months**

Week No.	Professional Skills	Professional Knowledge
1	LPG Stove /Cooking range, Operation of oven set the temperature requirement, Electric Toaster Mixer/Grinder Care and Cleaning or Mixer Grinder, Food Processor and Water Purifier set care and maintenance.	Introduction to Catering/Food Industry. History of Modern Cookery. Farm to Table – The entire supply chain. Different types of catering establishments - Hotels / Restaurants - Hospitals / Institutions - Industrial / Canteens - Transport Catering – Cruises, Railways and Airlines Organizational hierarchy of the Kitchen department (line & function) Attributes of kitchen service personal: Duties and responsibilities of kitchen service personal. Career Opportunities in the catering/Food Industry
2	Identification of kitchen tools & instruments and it's specific usage (Knives in particular)	Knowledge about small, medium and large instruments, Uses of instruments. Recommended metals for kitchen equipments and their standards (FSSAI), Common brands & manufacturers. Approximate costs. Safety procedure in handling Equipment
	Identification of basic processing / cooking equipment (light & heavy)	Knowledge about small, medium and large processing / cooking equipment. Recommended metals for kitchen equipments and their standards (FSSAI), Common brands & manufacturers. Approximate costs
	Metals used in cooking – Stainless steel Special uses of Copper & Brass	Importance of avoiding other metals Benefits of using Stainless Steel

		Specific use & benefits of Copper, Brass.
	Cleaning, maintaining and storage of tools & equipment	Cleaning & sanitizing agents and their usage. Cleaning of kitchen and preparation for work-mise-en-place. Recommended chemicals for cleaning and sanitation and their usage.
	A) Personal hygienic: Safety of different body parts. Food handler's hygienic protective clothing. B) Working area hygiene procedure and its importance. C) Fire Hazards and first aid contents.	Introduction to basic food and personal safety measures. Biological, chemical & Physical adulteration/spoilage. Physical, chemical and Biological hazards in food. Various textures, consistencies Techniques used in pre-preparation and preparation of food items
	Basic hygiene practices to be observed in kitchen area	Personal hygiene Grooming requirements & recommended scheduled to be practiced, care and safety of body and its importance, Food handlers hygienic : Protective clothing. Working area hygiene and its importance.
	Safety practices to be observed in kitchen	Handling and Safety rules for using different types of knives and other kitchen equipment. Introduction to basic first aid theory and Knowledge about treating the minor injuries- • Cuts • scalds • burns
3-6	Demonstrations Preparation of different food Ingredients (Mise-en-place) Washing & cleaning Separation of edible & non-edible parts Peeling, coring, shelling, Shredding, blanching, grading, sorting, Grinding, Pounding and chopping	Identification of basic food raw material through photographs/ Videos, samples. Classification of raw materials Fruits & Vegetables ,Cereals & Pulses, Spices, Condiments, Herbs & additives Types and identification of the same.

	Cutting (mainly vegetable & fruits): Brunoise, Chiffonade, Jardinere, Julienne, Macedoine, Paysanne, Matignone, Slices, Paring, Turned, Wedges, Allumette, Fluting of mushrooms, Turning Carrots and Potatoes Preparation of paneer/cheese from milk. Cutting of paneer/cheese for various dishes. Preparation of Burfee, Balushahi, Halwas, Gulabjamun, jalabi, Gujias, phirnee and Rasgulla. Preparation of different types of indigenous food products.	Classification of methods of cutting for different fruits and vegetables. To study the various types of Indigenous desserts sweet dishes and indigenous food products.
7	Method of mixing foods: Blending, Dissolving, Emulsification, Whipping, Folding, Beating, Creaming, Kneading, Marinating.	Preparation and identification of emulsions, blends, mixes etc. Accompaniment and Garnishes.
8-9	Demonstration: Uncooked & Cooked Salads Vegetable Salads, Leafy Salads, Fruit Salads, Whole meal Salads, Indian green salad, Salad Dressings: Vinaigrette Dressing, Oil based dressings, Citrus juice dressings, Derivatives,	A Knowledge about methods of preparation of salads and salad dressing
10-11	Demonstration of cooking methods: Baking Boiling Poaching Stewing Broiling	Methods of Cooking & effect of heat on foods Dry Heat, Moist Heat and Microwave Heating. Cooking by medium of Fat, Conduction & Convection Heating.

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	Frying Griddling Grilling Roasting Saute / Stir Fry To be demonstrated on (as applicable): Fruits & Vegetable Cereals & Pulses	
12-13	Preparation of Rice, Pulaos, Veg Biryani & Daals - 3 preparations in each	Regional Cuisine in India. List of utensils & equipment – Material, uses, cleaning & storage. Spices & Herbs – Identification & Uses. Effect of heating on various food ingredients. Rice, Pulaos, Veg Biryani & Daals. Tandoor Dishes (includes different seasoning on tandoori dishes. Lighting & controlling and operations of a tandoor.
	Demonstrations: Basic Indian Gravy Base Tomato & Onion, Cashew, Tomato, Yoghurt, Yellow, Makni, White, & Brown Gravy. Final finish & presentation of dishes	To study various types of basic Indian gravies. Tempering (Tadka) & Garnishes. To study various types of basic Indian gravies. Tempering (Tadka) & Garnishes.
	Assessment/Examination 03days	

NOTE: -

More emphasis to be given on video/real-life pictures during theoretical classes. Some real-life pictures/videos of related industry operations may be shown to the trainees to give a feel of Industry and their future assignment.

BASIC TRAINING (Block – II)

Duration: (03) Three Months

Week No.	Professional Skills	Professional Knowledge
1-3	Demonstrations: Stocks, Soups & Sauces Demonstration: Vegetable Stock, Demonstration of one vegetable soups in each type. Demonstration of one vegetable sauce in each type & its derivative.	Stocks, Soups & Sauces Recipes: Vegetable Stock Types of stock, storage, uses of stocks. Classification of Soups: Thick – Puree Cream Chowder Thin – Unpassed Broths Thin – Passed Cold & International Sauces Mayonnaise Veloute Tomato (Kitchen) Sauce Derivatives of Basic Sauces
4-5	Hordoeuvres, Canapes, Sandwiches Demonstration on 6 varieties of each type.	Hordoeuvres, Canapes, Sandwiches : open, toasted, grilled and multi-layered sandwiches
6-8	Preparation & Cooking of Vegetables European Cuisine Potatoes – 3 varieties Vegetables – 3 varieties Demonstration and preparation of Spaghetti & macroni.	Vegetables:- Classification, Selection & assessing quality, Season of availability, Effect of heat on different vegetables in acid/alkaline medium and reaction with different metals. To study about the various type farinaceous products. Yield and Wastage. Weights and Measures. Different brands available in market.
9-10	Preparation of different types of snacks, pickles, preserves & chutney, sauces and Raita.	Different methods of preparation, ingredients, equipments/utensils involved in the preparation of snacks, pickles, preserve & chutney, sauces and

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		Raita.
11	Preparation & Cooking of Cereals, Farinaceous and Pulses Cooking of Rice, Cooking of beans & pulses, Cooking of Pasta – 2 varieties, Cooking of Pasta sauces – 4 varieties	Identification & Selection of Cereals and pulses. Varieties of pasta and methods of preparation.
12	Bakery & Confectionery 5 finished dishes from each base dough & pastes, Breakfast breads – 10 varieties Waffles & Pancakes Cookies Banana fritter, Payasam, Malpura, Rice pudding, Basic Calligraphy for cake decoration.	Basic Dough & Pastes. Bread Dough & its types. Puff paste, Choux paste, Short crust paste, Danish paste, Cakes: Pound Cake, Cheese Cake, Puddings: Banana fritter, Payasam, Malpura, Rice pudding,
13	Preparation of different types of Regional foods—2 Varieties each.	Balancing of recipes. Standardization of recipes, Yield, Menu compilation, Menu planning, Portion control with brief study of how portions are worked out, Purchasing specification. Quality control, indenting and costing Rechauffe.
Assessment/Examination 03days		

NOTE: -

- *More emphasis to be given on video/real-life pictures during theoretical classes. Some real-life pictures/videos of related industry operations may be shown to the trainees to give a feel of Industry and their future assignment.*

9.1 EMPLOYABILITY SKILLS

(DURATION: - 110 HRS.)

Block – I (Duration – 55 hrs.)		
1. English Literacy		Duration : 20 Hrs. Marks : 09
Pronunciation	Accentuation (mode of pronunciation) on simple words, Diction (use of word and speech)	
Functional Grammar	Transformation of sentences, Voice change, Change of tense, Spellings.	
Reading	Reading and understanding simple sentences about self, work and environment	
Writing	Construction of simple sentences Writing simple English	
Speaking / Spoken English	Speaking with preparation on self, on family, on friends/ classmates, on know, picture reading gain confidence through role-playing and discussions on current happening job description, asking about someone's job habitual actions. Cardinal (fundamental) numbers ordinal numbers. 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.	
2. I.T. Literacy		Duration : 20 Hrs. Marks : 09
Basics of Computer	Introduction, Computer and its applications, Hardware and peripherals, Switching on-Starting and shutting down of computer.	
Computer Operating System	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.	
Word processing and Worksheet	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.	

Computer Networking and Internet	Basic of computer Networks (using real life examples), Definitions of Local Area Network (LAN), Wide Area Network (WAN), 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. Communication Skills	
Duration : 15 Hrs. Marks : 07	
Introduction to Communication Skills	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.
Listening Skills	Listening-hearing and listening, effective listening, barriers to effective listening guidelines for effective listening. Triple- A Listening - Attitude, Attention & Adjustment. Active Listening Skills.
Motivational Training	Characteristics Essential to Achieving Success. The Power of Positive Attitude. Self awareness Importance of Commitment Ethics and Values Ways to Motivate Oneself Personal Goal setting and Employability Planning.
Facing Interviews	Manners, Etiquettes, Dress code for an interview Do's & Don'ts for an interview.
Behavioral Skills	Problem Solving Confidence Building Attitude
Block – II Duration – 55 hrs.	
4. Entrepreneurship Skills	Duration : 15 Hrs.

		Marks : 06
Concept of Entrepreneurship	Entrepreneur - Entrepreneurship - Enterprises:-Conceptual issue Entrepreneurship vs. management, Entrepreneurial motivation. Performance & Record, Role & Function of entrepreneurs in relation to the enterprise & relation to the economy, Source of business ideas, Entrepreneurial opportunities, The process of setting up a business.	
Project Preparation & Marketing analysis	Qualities of a good Entrepreneur, SWOT and Risk Analysis. Concept & application of PLC, Sales & distribution Management. Different Between Small Scale & Large Scale Business, Market Survey, Method of marketing, Publicity and advertisement, Marketing Mix.	
Institutions Support	Preparation of Project. Role of Various Schemes and Institutes 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.	
Investment Procurement	Project formation, Feasibility, Legal formalities i.e., Shop Act, Estimation & Costing, Investment procedure - Loan procurement - Banking Processes.	
5. Productivity		Duration : 10 Hrs. Marks : 05
Benefits	Personal / Workman - Incentive, Production linked Bonus, Improvement in living standard.	
Affecting Factors	Skills, Working Aids, Automation, Environment, Motivation - How improves or slows down.	
Comparison with developed countries	Comparative productivity in developed countries (viz. Germany, Japan and Australia) in selected industries e.g. Manufacturing, Steel, Mining, Construction etc. Living standards of those countries, wages.	
Personal Finance Management	Banking processes, Handling ATM, KYC registration, safe cash handling, Personal risk and Insurance.	
6. Occupational Safety, Health and Environment Education		Duration : 15 Hrs. Marks : 06
Safety & Health	Introduction to Occupational Safety and Health importance of safety and health at workplace.	
Occupational Hazards	Basic Hazards, Chemical Hazards, Vibroacoustic Hazards, Mechanical Hazards, Electrical Hazards, Thermal Hazards. Occupational health, Occupational hygienic, Occupational Diseases/ Disorders & its prevention.	
Accident & safety	Basic principles for protective equipment. Accident Prevention techniques - control of accidents and safety	

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	measures.
First Aid	Care of injured & Sick at the workplaces, First-Aid & Transportation of sick person.
Basic Provisions	Idea of basic provision legislation of India. safety, health, welfare under legislative of India.
Ecosystem	Introduction to Environment. Relationship between Society and Environment, Ecosystem and Factors causing imbalance.
Pollution	Pollution and pollutants including liquid, gaseous, solid and hazardous waste.
Energy Conservation	Conservation of Energy, re-use and recycle.
Global warming	Global warming, climate change and Ozone layer depletion.
Ground Water	Hydrological cycle, ground and surface water, Conservation and Harvesting of water.
Environment	Right attitude towards environment, Maintenance of in -house environment.
7. Labour Welfare Legislation	
Duration : 05 Hrs. Marks : 03	
Welfare Acts	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.
8. Quality Tools	
Duration : 10 Hrs. Marks : 05	
Quality Consciousness	Meaning of quality, Quality characteristic.
Quality Circles	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.
Quality Management System	Idea of ISO 9000 and BIS systems and its importance in maintaining qualities
House Keeping	Purpose of House-keeping, Practice of good Housekeeping.
Quality Tools	Basic quality tools with a few examples.

10. DETAILS OF COMPETENCIES (ON-JOB TRAINING)

The **competencies/ specific outcomes** on completion of On-Job Training are detailed below: -

Block – I (On-the-Job Training) (9 Months)

1. Identify Utensils & equipments and chemical and sanitizing agents used for kitchen tools and equipments.
2. Identify spices and herbs
3. Demonstrate cooking methods with specific utensils and explain effect of heat on foods.
4. Prepare chutney and dips by using appropriate machines and kitchen tools.
5. Prepare Indian breads and Tandoor dishes.
6. Prepare basic Indian gravies such as Tomato, Onion, Cashew and Yoghurt.
7. Prepare dishes with veg. gravy.
8. Prepare rice, pulaos, Veg biryanis and daals by using kitchen tools
9. Prepare Indian sweet dishes such as Burfee, Balushahi, Halwas, Gulabjamun, jalabi, Gujias, phirnee and Rasgulla.
10. Prepare different types of regional foods.

Block – II (On-the-Job Training) (9 Months)

11. Prepare and explain stocks, soups and sauces by using kitchen tools.
12. Prepare hor d' oeuvres, canapés and sandwiches.
13. Prepare and cook vegetables for European cuisine.
14. Prepare farinaceous products as spaghetti & macroni.
15. Prepare different types of Regional foods.
16. Prepare and cook rice, beans & pulses, pasta and pasta sauces.
17. Prepare bakery and confectionery products such as breakfast breads, waffles & pancakes, cookies and basic calligraphy for cake decoration.
18. Prepare snacks, pickles, preserve, chutney, sauces and raitha.
19. Explain food safety standards and food adulteration.

Note:

1. Industry must ensure that above mentioned competencies are achieved by the trainees during their on job training.
2. In addition to above competencies/ outcomes industry may impart additional training relevant to the specific industry.

INFRASTRUCTURE FOR PROFESSIONAL SKILL & PROFESSIONAL KNOWLEDGE

FOOD PRODUCTION (GENERAL)		
LIST OF TOOLS AND EQUIPMENT for Basic Training (For 20 Apprentices)		
A: TRAINEES TOOL KIT:-		
Sl. No.	Name of the items	Quantity
1.	Knife Kit – Chef's Knife Filet Knife Paring Knife Peelers Knife Sharpeners	1 each
2.	Wiping Cloth	3 Sets (2 Nos.)
3.	Apron	3 Nos.
4.	Kitchen Shoes (slip on, round front, anti slip)	2 Pairs
5.	Head/Beard mesh cap	2 pairs
Training Kitchen		
S. No.	Equipment	Essential or Desirable
6.	Working tables (Stainless steel food grade)	E
7.	L.P. Gas Cooking Range	E
8.	Oven, toaster and griller	E
9.	Induction Plate	E
10.	Tandoor and Skewer	E
11.	Cooking Range (High Pressure)	E
12.	Griddle (Cooking plate)	E
13.	Dry Store	D
14.	Refrigerator and Deep Freezer	D
15.	Black Board	D
16.	Trainer's Table	D
17.	Required Electric, Gas Connections, Lighting & Air Conditioning	D
18.	Dish Wash Area with required Sink & water supply	E
19.	Pot Wash Area with required water supply	E
20.	Grinding Stone	E
21.	Coconut Grater	D
22.	Grinder Machine	D
23.	Blender/Mixer	D

FOOD PRODUCTION (GENERAL)

24.	Dough or batter Maker	D
25.	Dough Mixer	D
26.	Weighing Balance	E
27.	Chopping Boards - Plastic with HACCP Colour Coding	E
28.	Cutting Knives (Full Set) (All Types)	E
29.	Frying Pan-Non-Stick/Small/Medium/Large	E
30.	Kadai-Large/Small (Non stick induction)	E
31.	Heavy Bottom Pan Small/Big	E
32.	Aluminum Degchi-15Ltr./12 Ltr.	E
33.	Tawa- General/Large	E
34.	Wok (Chinese Kadai)	E
35.	Cooker-1 Ltr. / 2 Ltr.,	E
36.	Strainers-Conical/Strainers)	E
37.	Steel Bowls-Small/Medium/Big	E
38.	Collander	E
39.	Baking Tray	E
40.	Holders(Tongs/bowl)	
41.	Saucepan Large/small	E
42.	Plastic Trays-Big/Small	D
43.	Pie Dish	D
44.	Steel Plates	D
45.	Containers (For keeping dry items) (Plastic/Steel)	E
46.	Serving dish	E
47.	Bread, Cake & assorted moulds	E
48.	Roiling Pin and Rolling Base	E
49.	Mandolin Grater	D
50.	Wooden Spatula	E
51.	Perforated Spoon	E
52.	Steel Slicer	E
53.	Steel Basin	D
54.	Steel Ladles	D
55.	Steel & Plastic Mugs	D
56.	Steel Spoons	D
57.	Balloon Whisk	E
58.	Measuring Jars	E
59.	Digital Thermometers	E
60.	Dustbins	E
61.	Chart denoting the Do's' and Don'ts Kitchen	E
62.	First Aid Kit and Fire Extinguishers	E
63.	Baking ovens	E

FOOD PRODUCTION (GENERAL)

64.	Fly killer (UV type)	E
65.	Rodent box/ Glue Trap	E

B: Instruments & General Shop Outfit

Sl. No.	Name of the items	Quantity
66.	Lighting (natural & artificial).	As required
67.	Ventilation, air-conditioning (temperature & humidity and air quality measurement).	As required
68.	Minimum recommended space for prevention of accidents.	As required
69.	Trolleys & other aids to lift and move heavy material.	As required
70.	Safety gear while working on heavy duty equipment& preventing contamination of food Steel mesh gloves.	As required
71.	Locker for 20 Trainees	As required

C: General Machinery Installations –

Sl. No.	Name & Description of Machines	Quantity
72.	A machinery / equipment are not essential, but desirable and intended for heavy pay load	As per size of establishment
73.	Walk – in coolers and deep freeze	As required
74.	Deep fat fryers	As required
75.	3- tier ovens	As required
76.	Combi – ovens	As required
77.	Steam boilers / Tandoors / Griddle plates	As required
78.	High pressure gas stoves	As required
79.	Industrial scale – peeler, slices, choppers, Grinder and pulper.	As required
80.	Dough kneaders & sheeters, Beater / mixers for batters	As required
81.	Wet Grinders	As required

FORMAT FOR INTERNAL ASSESSMENT

Name & Address of the Assessor :						Year of Enrollment :							
Name & Address of ITI (Govt./Pvt.) :						Date of Assessment :							
Name & Address of the Industry :						Assessment location: Industry / ITI							
Trade Name :			Semester:			Duration of the Trade/course:							
Learning Outcome:													
Sl. No	Maximum Marks (Total 100 Marks)	15	5	10	5	10	10	5	10	15	15	Total internal assessment Marks	Result (Y/N)
	Candidate Name	Father's/Mother's Name	Safety consciousness	Workplace hygiene	Attendance/ Punctuality	Ability to follow Manuals/ Written instructions	Application of Knowledge	Skills to handle tools & equipment	Economical use of materials	Speed in doing work	Quality in workmanship	VIVA	
1													
2													