

CURRICULUM

FOR THE TRADE OF

Food Production General

UNDER

APPRENTICESHIP TRAINING SCHEME (ATS)



Government of India
Ministry of Skill Development & Entrepreneurship
Directorate General of Training

CONTENTS

Sl. No.	Topics	Page No.
1.	Background 1.1 Apprenticeship Training 1.2 Present Scenario 1.3 Reformation	3-4
2.	Rationale	5
3.	Job roles: reference NOS & NCO	6
4.	Learning Outcomes	7-8
5.	NSQF Level Compliance	9
6.	General Information	10
7.	Course structure	11-12
8.	Required Competencies	13-24
9.	Syllabus	25-43
	9.1 Basic Training	
	9.1.1 Detailed Syllabus of Core Skill: Vocational Calculation and Science	
	9.1.2 Detail Syllabus of Professional Skill & Professional Knowledge	
	9.1.3 Employability Skills	
	9.1.3.1 Syllabus of Employability Skills	
	9.2 Practical Training (On-Job Training)	
	9.2.1 Syllabus for Professional Skill	
	9.2.2 syllabus for Professional Knowledge	
10.	Assessment Standard	44-49
	10.1 Assessment Guideline	
	10.2 Internal Assessment (Formative Assessment)	
	10.3 Final Assessment: All India Trade Test (Summative Assessment)	
	Further Learning Pathways	50
	List of Expert Members	51
11.	List of Tools and Equipment	
	Annexure-I	52-55
	Annexure-II	56-58
	Annexure-III	59

1. Back-Ground

1.1 Apprenticeship Training under Apprentices 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.

Develop the curriculum (equivalent to the level 4 NSQF) for food production in the food service industry.

1.2 Changes in Industrial Scenario

There is a huge change 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.
- 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.

2. RATIONALE

(Need for Apprenticeship in Food Production General Trade)

The revised Apprenticeship Training Scheme (ATS) shall make the students more adapt to industry requirement through latest theoretical & practical inputs as:

1. It offers a good synergy between Basic Training (Theoretical Inputs) & Practical Training (On the Job training) unlike earlier scheme where students need to complete two year's classroom training before undergoing PT (On the Job training).
2. It will enhance knowledge about scientific principles, familiarization with industrial culture, and basics of fitting and its need.

Further, the tourism industry has contributed Rs. 6.6 Trillion to the Indian Economy in 2013 and the Foreign Exchange Earnings (FEE) has been a little over 18 billion USD. This contribution is from the organized sector of transport, boarding and lodging.

With the economy expected to grow at an average of 5-7% each year for the next 4 years there would be a substantial increase in all related numbers.

Currently the food industry India in organized hotel & restaurants segments employs huge number of skilled, semi-skilled & unskilled personnel. There is already a supply / demand gap in the skills segment of this industry.

While other schemes like HSR & vocational training through NSDC have been initiated, it has met with limited success in retaining this labour within the industry i.e. infant mortality is high in this area across various sectors of the industry.

3. 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 & NOS:

NOS: - As on date no NOS has been developed for this sector by NSDC.

NCO: -1217 (2004)

4. Learning Outcomes

A. GENERIC OUTCOME

1. Recognize & comply safe working practices, environment regulation and housekeeping.
2. Work in a team, understand and practice soft skills, technical English to communicate with required clarity.
3. Demonstrate knowledge of concept and principles of basic arithmetic, algebraic, and apply knowledge of specific area to perform practical operations.
4. Understand and explain the concept in quality tools and labour welfare legislation and apply such in day to day work to improve productivity & quality.
5. Explain energy conservation, global warming and pollution and contribute in day to day work by optimally using available resources.
6. Explain personnel finance, entrepreneurship and manage/organize related task in day to day work for personal & societal growth.
7. Understand and apply basic computer working, basic operating system and uses internet services to get accustomed & take benefit of IT developments in the industry.

B. SPECIFIC OUTCOME

BLOCK I

8. Explain different food industry, career opportunities, duty & responsibility of kitchen service.
9. Identify kitchen and cooking tools, instruments & equipments and chemical and cleaning agents used for kitchen tools and equipments.
10. Express basic food safety and personal hygienic.

BLOCK I

11. Demonstrate pre-preparation of ingredients.
12. Demonstrate cutting of fruits and vegetables.
13. Prepare meat, fish, poultry and pork.
14. Demonstrate different mixing method of foods.
15. Demonstrate marinades & rubs.
16. Prepare different types of salads and its dressing.
17. Demonstrate cooking methods and explain effect of heat on foods.
18. Demonstrate basic Indian gravy such as Tomato, Onion, Cashew and Yoghurt.
19. Demonstrate rice, pulaos, biryanis and daals by using kitchen tools.

BLOCK II (On-the-Job Training)

20. Demonstrate and explain stocks, soups and sauces by using kitchen tools.
21. Demonstrate hor d' oeuvres , canapés and sandwiches.
22. Prepare different products from eggs such as boiled, scrambled, fried, poached and omelets.
23. Prepare and cook vegetables for European cuisine.
24. Prepare and cook non vegetarian dishes from fish, beef/veal, lamb/mutton, pork, game birds and chicken.
25. Prepare and cook rice, beans & pulses, pasta and pasta sauces.
26. Prepare bakery and confectionery products such as breakfast breads, waffles & pancakes, cookies and basic calligraphy for cake decoration.

Block – I (On-the-Job Training)

27. Identify Utensils & equipments and chemical and cleaning agents used for kitchen tools and equipments.
28. Identify spices and herbs
29. Demonstrate cooking methods with specific utensils and explain effect of heat on foods.
30. Prepare Raita, chutney and dips by using appropriate machines and kitchen tools.
31. Prepare Indian breads and Tandoor dishes such as Kebabs.
32. Prepare basic Indian gravy such as Tomato, Onion, Cashew and Yoghurt.
33. Prepare dishes with gravy both veg and non-veg.
34. Prepare rice, pulaos, biryanis and daals by using kitchen tools.

Block – II (On-the-Job Training)

35. Prepare and explain stocks, soups and sauces by using kitchen tools.
36. Prepare hor d' oeuvres , canapés and sandwiches.
37. Prepare different products from eggs such as boiled, scrambled, fried, poached and omelets.
38. Prepare and cook vegetables for European cuisine.
39. Prepare and cook non vegetarian dishes from fish, beef/veal, lamb/mutton, pork, game birds and chicken.
40. Prepare and cook rice, beans & pulses, pasta and pasta sauces.
41. Prepare bakery and confectionery products such as breakfast breads, waffles & pancakes, cookies and basic calligraphy for cake decoration.
42. Explain food safety standards and food adulteration.

Block – II (On-the-Job Training) (Optional – Place of European Cuisine)

43. Identify Utensils & equipments and chemical and cleaning agents used for kitchen tools and equipments.
44. Prepare dim-sums by using appropriate machines and tools.
45. Demonstrate cooking methods with specific utensils and explain effect of heat on foods.
46. Prepare rice and noodles by using appropriate machines and tools.
47. Demonstrate the uses of sauces, spices and condiments for finished dishes in Chinese cuisine.

5. NSQF COMPLIANCE LEVEL

NSQF level for Food Production General Trade under ATS: **Level 4**

As per notification issued by Govt. of India dated 27.12.2013 on National Skill Qualification Framework (NSQF) there are 10 nos. of level descriptors.

Each level descriptor 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:

- a. Process
- b. Professional Knowledge
- c. Professional Skill
- d. Core Skill and
- e. Responsibility.

The broad learning outcome of Food Production General Trade under ATS mostly matches with the level descriptor at Level 4.

The NSQF level descriptor is given below:

Level	Process Required	Professional Knowledge	Professional Skill	Core Skill	Responsibility
Level 4	work in familiar, predictable, routine, situation of clear choice	Factual knowledge of field of knowledge or study	Recall and demonstrate practical skill, routine and repetitive in narrow range of application, using appropriate rule and tool, using quality concepts	Language to communicate written or oral, with required clarity, skill to basic arithmetic and algebraic principles, basic understanding of social political and natural environment	Responsibility for own work and learning

6. General Information

- 1. Name of the Trade** : **Food Production General**
- 2. N.C.O./N.O.S. Code No.** : **NOS: - As on date no NOS has been developed for this sector by NSDC.**
NCO: - 1217- (2004)
- 3. Duration of Apprenticeship Training (Basic Training + Practical Training):**
6 + 18Months = 2 Years.
- 4. Duration of Basic Training: -**
- a) Block – I (3 months)
 - b) Block – II (3 months)
- Total duration of Basic Training (6 months)**
- 5. Duration of Practical Training (On – job Training): -**
- a) Block – I (9 months)
 - b) Block – II (9 months)
- Total duration of Practical Training (18 months)**
- 6. Entry Qualification:** Passed 8th Class with under 10+2 system of Education or its equivalent
 At least 16 years of age on the day commencing the apprenticeship.
- 7. Selection of Apprentices:**The apprentices will be selected as per Apprenticeship Act amended from time to time.

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.

7. COURSE STRUCTURE

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

Components of Training	Duration of Training in Months																							
↓	→																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Basic Training + Employability SkillBlock -I	█	█	█																					
Practical Training Block -I				█	█	█	█	█	█	█	█	█												
Basic Training + Employability SkillBlock -II													█	█	█									
Practical Training Block -II																█	█	█	█	█	█	█	█	█

8. ASSESSABLE OUTCOME/ LEARNING OUTCOME WITH ASSESSMENT CRITERIA

Competencies after completion of two years Food Production General Trade:

A. GENERIC ASSESSABLE OUTCOME

ASSESSABLE OUTCOMES	REF. SYLLABI	ASSESSMENT CRITERIA
1. Recognize & comply safe working practices, environment regulation and housekeeping.	BLOCK-I (BT-Wk. No.1 & OJT-Wk.No.1)	1.1 Follow and maintain procedures to achieve a safe working environment in line with occupational health and safety regulations and requirements and according to site policy.
		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 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 Productive 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 the avoidance of instances of environmental pollution.
		1.13 Deploy environmental protection legislation & regulations
		1.14 Take opportunities to use energy and materials in an environmentally friendly manner
		1.15 Avoid waste and dispose waste as per procedure
		1.16 Recognize different components of 5S and apply the same in the working environment.
2. Work in a team, understand and practice soft skills, technical English to communicate with required clarity.	BLOCK-I, OJT-Wk. No.2 & Item No. 9.1.3.1 Block –I	2.1 Obtain sources of information and recognize information.
		2.2 Use and draw up technical drawings and documents.
		2.3 Use documents and technical regulations and occupationally related provisions.
		2.4 Conduct appropriate and target oriented discussions with higher authority and within the team.
		2.5 Present facts and circumstances, possible solutions & use English special terminology.
		2.6 Resolve disputes within the team

		2.7 Conduct written communication.
3. Demonstrate knowledge of concept and principles of basic arithmetic, algebraic, co-ordinate system and apply knowledge of specific area to perform practical operations.	Item No. 9.1.1 Block – I & II	3.1 Semester examination to test basic skills on arithmetic, algebra.
		3.2 Their applications will also be assessed during execution of assessable outcome and also tested during theory and practical examination.
4. Understand and explain the concept in quality tools, and labour welfare legislation and apply such in day to day work to improve productivity & quality.	Item No. 9.1.3.1 Block –II	4.1 Semester examination to test the concept in productivity, quality tools and labour welfare legislation.
		4.2 Their applications will also be assessed during execution of assessable outcome.
5. Explain energy conservation, global warming and pollution and contribute in day to day work by optimally using available resources.	Item No. 9.1.3.1 Block –II	5.1 Semester examination to test knowledge on energy conservation, global warming and pollution.
		5.2 Their applications will also be assessed during execution of assessable outcome.
6. Explain personnel finance, entrepreneurship and manage/organize related task in day to day work for personal & societal growth.	Item No. 9.1.3.1 Block –II	6.1 Semester examination to test knowledge on personnel finance, entrepreneurship.
		6.2 Their applications will also be assessed during execution of assessable outcome.
7. Understand and apply basic computer working, basic operating system and uses internet services to get accustomed & take benefit of IT developments in the industry.	Item No. 9.1.3.1 Block –I	7.1 Semester examination to test knowledge on basic computer working, basic operating system and uses internet services.
		7.2 Their applications will also be assessed during execution of assessable outcome.

B. SPECIFIC ASSESSABLE OUTCOME:**BLOCK I**

ASSESSABLE OUTCOME	REF. SYLLABI	ASSESSMENT CRITERIA
8. Explain different food industry, career opportunities, duty & responsibility of kitchen service.	Item No 9.1.2 , Block I, (Theory), Week No 1	8.1 Farming to table 8.2 Types of catering establishments. 8.3 Organizational hierarchy of kitchen departments. 8.4 Duty and responsibility of kitchen service. 8.5 Career opportunities in food industry.
9. Identify kitchen, cooking and processing tools, instruments & equipments and chemical and cleaning agents used for kitchen tools and equipments.	Item No 9.1.2 , Block I, (Theory), Week No 2	9.1 Maintain perfect hygiene standard 9.2 Clean and maintain tools, equipments and kitchen 9.3 Identify different cleaning agents. 9.4 Use of kitchen tools and instruments. 9.5 Use different types of equipments such as stainless steel, copper and Brass (light & heavy). 9.6 Maintain safety.
10. Express basic food safety and personal hygienic.	Item No 9.1.2 , Block I, (Theory), Week No 2	10.1 Maintain perfect hygiene standard 10.2 Identify biological, chemical and physical spoilage/adulteration. 10.3 Express basic first aid theory.

BLOCK I

11. Demonstrate pre-preparation of ingredients such fruits, vegetables, meat, fish, poultry and pork by using appropriate machines and kitchen tools.	Item No 9.1.2 , Block I, (Theory), Week No 3-5	11.1 Maintain perfect hygiene standard 11.2 Select ingredients and tools. 11.3 Wash and clean ingredients. 11.4 Separate edible and non edible parts. 11.5 Prepare fruits, vegetables, meat, fish, poultry and pork for the preparation of different products. 11.6 Maintain safety.
12. Demonstrate cutting of fruits and vegetables by using appropriate machines and kitchen tools such as knives and slicing machine.	Item No 9.1.2 , Block I, (Theory), Week No 3-5	12.1 Maintain perfect hygiene standard 12.2 Select fruits & vegetables and tools 12.3 Wash and clean fruits and vegetables. 12.4 Cut fruits and vegetables give them different shapes such as Brunoise, Chiffonade, Jardiniere, Julienne, Macedoine, Paysanne,

		Matignone, Slices, Paring, Turned, Wedges, Allumette, Fluting of mushrooms, Turning Carrots and Potatoes 12.5 Maintain safety.
13. Prepare products from meat, fish, poultry and pork by using appropriate machines and kitchen tools.	Item No 9.1.2 , Block I, (Theory), Week No 3-5	13.1 Maintain perfect hygiene standard 13.2 Select ingredients 13.3 Prepare meat, fish, poultry and pork for cooking. 13.4 Cook and roast 13.5 Final presentation. 13.6 Maintain safety
14. Demonstrate different mixing method of foods by using appropriate machines such as blender, mixer and grinder.	Item No 9.1.2 , Block I, (Theory), Week No 6	14.1 Maintain perfect hygiene standard 14.2 Select foods for mixing 14.3 Mix foods by using machines such as blender, mixer and grinder. 14.4 Maintain safety
15. Demonstrate marinades & rubs.	Item No 9.1.2 , Block I, (Theory), Week No 7	15.1 Maintain perfect hygiene standard 15.2 Select ingredients for marinades & rubs. 15.3 Prepare oil, citrus juice, vinegar and yoghurt based marinades. 15.4 Marinades of meat by using dry & moist marinades 15.5 Rub spices on marinade meat. 15.6 Maintain safety.
16. Prepare different types of salads and its dressing by using appropriate machines and kitchen tools.	Item No 9.1.2 , Block I, (Theory), Week No 8-9	16.1 Maintain perfect hygiene standard. 16.2 Select fruits and vegetables. 16.3 Wash and clean 16.4 Prepare fruits and vegetables for salads. 16.5 Cut fruits and vegetables into different shapes. 16.6 Dressing of cut fruits and vegetables by using Vinaigrette, Oil based and Citrus juice dressings. 16.7 Final presentation. 16.8 Maintain safety.

17. Demonstrate cooking of foods by using different methods and explain effect of heat on foods.	Item No 9.1.2 , Block I, (Theory), Week No 10-11	17.1 Maintain perfect hygiene standard. 17.2 Select food such meat, fish, poultry, fruits, vegetables, cereals & pulses for cooking. 17.3 Select methods of cooking such Baking, Broiling, Frying, griddling, grilling, roasting and stir fry. 17.4 Cooking of food. 17.5 Final presentation. 17.6 Maintain safety.
18. Demonstrate basic Indian gravy such as Tomato, Onion, Cashew and Yoghurt.	Item No 9.1.2 , Block I,(Theor y), Week No 12-13	18.1 Maintain perfect hygiene standard. 18.2 Select ingredients for gravy. 18.3 Prepare ingredients for gravy. 18.4 Prepare gravy from Tomato, Onion, Cashew and Yoghurt. 18.5 Final presentation 18.6 Maintain safety.
19. Demonstrate rice, pulaos, biryanis and daals by using kitchen tools.	Item No 9.1.2 , Block I, (Theory), Week No 12-13	19.1 Maintain perfect hygiene standard. 19.2 Select ingredients and tools 19.3 Prepare ingredients. 19.4 Cook rice, pulaos, biryanis and daals. 19.5 Final presentation 19.6 Maintain safety.

BLOCK II

ASSESSABLE OUTCOME	REF. SYLLABI	ASSESSMENT CRITERIA
20. Demonstrate and explain stocks, soups and sauces by using kitchen tools.	Item No 9.1.2 , Block II (Theory), Week No 1-2	20.1 Maintain perfect hygiene standard 20.2 Select ingredients and tools. 20.3 Prepare ingredients for soups and sauces. 20.4 Prepare soups and sauces such as white veal, chicken, brown, fish and vegetable stock. 20.5 Final presentation 20.6 Maintain safety

21. Demonstrate hor d' oeuvres , canapés and sandwiches.	Item No 9.1.2 , Block II (Theory), Week No 3-4	21.1 Maintain perfect hygiene standard 21.2 Select ingredients and tools. 21.3 Prepare ingredients for hor d' oeuvres , canapés and sandwiches. 21.4 Prepare hor d' oeuvres , canapés and sandwiches 21.5 Final presentation 21.6 Maintain safety
22. Prepare different products from eggs such as boiled, scrambled, fried, poached and omelets.	Item No 9.1.2 , Block II (Theory), Week No 5-6	22.1 Maintain perfect hygiene standard 22.2 Select ingredients and tools. 22.3 Prepare ingredients for egg products such as boiled, scrambled, fried, poached and omelets. 22.4 Prepare egg products such as boiled, scrambled, fried, poached and omelets. 22.5 Final presentation 22.6 Maintain safety
23. Prepare and cook vegetables for European cuisine.	Item No 9.1.2 , Block II (Theory), Week No 7-8	23.1 Maintain perfect hygiene standard 23.2 Select ingredients and tools. 23.3 Prepare ingredients for European cuisine 23.4 Prepare European cuisine 23.5 Final presentation 23.6 Maintain safety
24. Prepare and cook non vegetarian dishes from fish, beef/veal, lamp/mutton, pork, game birds and chicken.	Item No 9.1.2 , Block II (Theory), Week No 9-10	24.1 Maintain perfect hygiene standard 24.2 Select ingredients and tools. 24.3 Prepare ingredients for non vegetarian dishes 24.4 Prepare dishes from fish, beef/veal, lamp/mutton, pork, game birds and chicken. 24.5 Final presentation 24.6 Maintain safety
25. Prepare and cook rice, beans & pulses, pasta and pasta sauces.	Item No 9.1.2 , Block II (Theory), Week No 11	25.1 Maintain perfect hygiene standard 25.2 Select ingredients and tools. 25.3 Prepare ingredients for cooking rice, beans, pulses, pasta and pasta sauces 25.4 Cooking of rice, beans, pulses, pasta and pasta sauces 25.5 Final presentation 25.6 Maintain safety

26. Prepare bakery and confectionery products such as breakfast breads, waffles & pancakes, cookies and basic calligraphy for cake decoration.	Item No 9.1.2 , Block II (Theory), Week No 12	26.1 Maintain perfect hygiene standard 26.2 Select ingredients and tools. 26.3 Prepare ingredients for bakery and confectionery products such as breakfast breads, waffles & pancakes, cookies and basic calligraphy for cake decoration. 26.4 Prepare breakfast breads, waffles & pancakes, cookies and basic calligraphy for cake decoration 26.5 Final presentation 26.6 Maintain safety
--	---	--

BLOCK I

ASSESSABLE OUTCOME	REF. SYLLABI	ASSESSMENT CRITERIA
27. Identify Utensils & equipments and chemical and cleaning agents used for kitchen tools and equipments.	Item No 9.1.2 , Block I (On-the-Job Training), Week No 1-3	27.1 Maintain perfect hygiene standard 27.2 Clean and maintain tools, equipments and kitchen 27.3 Identify different cleaning agents. 27.4 Use of kitchen tools and instruments. 27.5 Use different types of equipments such as stainless steel, copper and Brass (light & heavy). 27.6 Maintain safety.
28. Identify spices and herbs	Item No 9.1.2 , Block I (On-the-Job Training), Week No 4-5	28.1 Maintain perfect hygiene standard 28.2 Identify different types of spices and herbs
29. Demonstrate cooking methods with specific utensils and explain effect of heat on foods.	Item No 9.1.2 , Block I (On-the-Job Training), Week No 6-9	29.1 Maintain perfect hygiene standard. 29.2 Select food for cooking. 29.3 Select methods of cooking such boil, steam, pan (tawa), shallow and deep fry. 29.4 Cooking of food. 29.5 Final presentation. 29.6 Maintain safety.

30. Prepare Raita, chutney and dips by using appropriate machines and kitchen tools.	Item No 9.1.2 , Block I (On-the-Job Training), Week No 16-19	30.1 Maintain perfect hygiene standard 30.2 Select ingredients and tools. 30.3 Prepare ingredients for raita, chutney and dips. 30.4 Prepare raita, chutney and dips. 30.5 Final presentation. 30.6 Maintain safety.
31. Prepare Indian breads and Tandoor dishes such as Kebabs.	Item No 9.1.2 , Block I (On-the-Job Training), Week No 20-24 & 25-26	31.1 Maintain perfect hygiene standard 31.2 Select ingredients and tools. 31.3 Prepare ingredients for Indian breads and Tandoor dishes such as Kebabs 31.4 Prepare Indian breads and kebabs 31.5 Final presentation. 31.6 Maintain safety.
32. Prepare basic Indian gravy such as Tomato, Onion, Cashew and Yoghurt.	Item No 9.1.2 , Block I (On-the-Job Training), Week No 27-30	32.1 Maintain perfect hygiene standard. 32.2 Select ingredients for gravy. 32.3 Prepare ingredients for gravy. 32.4 Prepare gravy from Tomato, Onion, Cashew and Yoghurt. 32.5 Final presentation 32.6 Maintain safety.
33. Prepare Indian dishes with gravy both veg and non-veg.	Item No 9.1.2 , Block I (On-the-Job Training), Week No 31-35	33.1 Maintain perfect hygiene standard. 33.2 Select ingredients Indian dishes with gravy both veg and non veg. 33.3 Prepare ingredients for Indian gravy dishes both veg and non veg. 33.4 Prepare Indian gravy dishes from fish, seafood, mutton, chicken and vegetables. 33.5 Final presentation 33.6 Maintain safety.
34. Prepare rice, pulaos, biryanis and daals by using kitchen tools.	Item No 9.1.2 , Block I (On-the-Job Training),	34.1 Maintain perfect hygiene standard. 34.2 Select ingredients and tools 34.3 Prepare ingredients. 34.4 Cook rice, pulaos, biryanis and daals.

	Week No 38	34.5 Final presentation 34.6 Maintain safety.
--	---------------	--

BLOCK II

ASSESSABLE OUTCOME	REF. SYLLABI	ASSESSMENT CRITERIA
35. Prepare and explain stocks, soups and sauces by using kitchen tools.	Item No 9.1.2 , Block II (On-the- Job Training), Week No 1-5	35.1 Maintain perfect hygiene standard 35.2 Select ingredients and tools. 35.3 Prepare ingredients for soups and sauces. 35.4 Prepare soups and sauces such as white veal, chicken, brown, fish and vegetable stock. 35.5 Final presentation 35.6 Maintain safety
36. Prepare hor d' oeuvres , canapés and sandwiches.	Item No 9.1.2 , Block II (On-the- Job Training), Week No 6-9	36.1 Maintain perfect hygiene standard 36.2 Select ingredients and tools. 36.3 Prepare ingredients for hor d' oeuvres , canapés and sandwiches. 36.4 Prepare hor d' oeuvres , canapés and sandwiches 36.5 Final presentation 36.6 Maintain safety
37. Prepare different products from eggs such as boiled, scrambled, fried, poached and omelets.	Item No 9.1.2 , Block II (On-the- Job Training), Week No 10-14	37.1 Maintain perfect hygiene standard 37.2 Select ingredients and tools. 37.3 Prepare ingredients for egg products such as boiled, scrambled, fried, poached and omelets. 37.4 Prepare egg products such as boiled, scrambled, fried, poached and omelets. 37.5 Final presentation 37.6 Maintain safety
38. Prepare and cook vegetables for European cuisine.	Item No 9.1.2 , Block II (On-the- Job Training), Week No 15-20	38.1 Maintain perfect hygiene standard 38.2 Select ingredients and tools. 38.3 Prepare ingredients for European cuisine 38.4 Prepare European cuisine 38.5 Final presentation 38.6 Maintain safety
39. Prepare and cook non vegetarian dishes from fish, beef/veal, lamb/mutton, pork,	Item No 9.1.2 ,	39.1 Maintain perfect hygiene standard

game birds and chicken.	Block II (On-the-Job Training), Week No 21-26	39.2 Select ingredients and tools. 39.3 Prepare ingredients for non vegetarian dishes 39.4 Prepare dishes from fish, beef/veal, lamb/mutton, pork, game birds and chicken. 39.5 Final presentation 39.6 Maintain safety
40. Prepare and cook rice, beans & pulses, pasta and pasta sauces.	Item No 9.1.2 , Block II (On-the-Job Training), Week No 27-31	40.1 Maintain perfect hygiene standard 40.2 Select ingredients and tools. 40.3 Prepare ingredients for cooking rice, beans, pulses, pasta and pasta sauces 40.4 Cooking of rice, beans, pulses, pasta and pasta sauces 40.5 Final presentation 40.6 Maintain safety
41. Prepare bakery and confectionery products such as breakfast breads, waffles & pancakes, cookies and basic calligraphy for cake decoration.	Item No 9.1.2 , Block II (On-the-Job Training), Week No 32-36	41.1 Maintain perfect hygiene standard 41.2 Select ingredients and tools. 41.3 Prepare ingredients for bakery and confectionery products such as breakfast breads, waffles & pancakes, cookies and basic calligraphy for cake decoration. 41.4 Prepare breakfast breads, waffles & pancakes, cookies and basic calligraphy for cake decoration 41.5 Final presentation 41.6 Maintain safety
42. Explain food safety standards and food adulteration	Item No 9.1.2 , Block II (On-the-Job Training), Week No 37-38	42.1 State food safety and standard Act 2006 BIS, ISO-22000, HACCP, International and Indian food standards. 42.2 State Personal Hygiene, cleaning and sanitary standards of kitchens 42.3 State food adulteration.

BLOCK – II (Optional – Place of European Cuisine)

ASSESSABLE OUTCOME	REF. SYLLABI	ASSESSMENT CRITERIA
43. Identify Utensils & equipments and chemical and cleaning agents used for kitchen tools and equipments.	Item No 9.1.2 , Block II (On-the-Job Training), (Optional– Place of European Cuisine) Week No 1-6	43.1 Maintain perfect hygiene standard 43.2 Clean and maintain tools, equipments and kitchen 43.3 Identify different cleaning agents. 43.4 Use of kitchen tools and instruments. 43.5 Use different types of equipments such as stainless steel, copper and Brass (light & heavy). 43.6 Maintain safety.
44. Prepare dim-sums by using appropriate machines and tools.	Item No 9.1.2 , Block II (On-the-Job Training), (Optional– Place of European Cuisine) Week No 16-19	44.1 Maintain perfect hygiene standard 44.2 Select ingredients and tools/machines. 44.3 Prepare ingredients for dim-sums. 44.4 Prepare dim sums 44.5 Store dim-sums 44.6 Final presentation 44.7 Maintain safety
45. Demonstrate cooking methods with specific utensils and explain effect of heat on foods.	Item No 9.1.2 , Block II (On-the-Job Training), (Optional– Place of European Cuisine) Week No 20-27	45.1 Maintain perfect hygiene standard. 45.2 Select food for cooking. 45.3 Select methods of cooking such Braising,Quick boiling,Scalding ,Bake stewing,Simmering & steaming,Deep Frying,Stir-frying,Pan-frying (special emphasis in the use of a Wok) Sauteing, Baking and Smoking 45.4 Cooking of food. 45.5 Final presentation. 45.6 Maintain safety.
46. Prepare rice and noodles by using appropriate machines and tools.	Item No 9.1.2 , Block II (On-the-Job	46.1 Maintain perfect hygiene standard 46.2 Select ingredients and tools/machines. 46.3 Prepare ingredients for rice and

	Training), (Optional– Place of European Cuisine) Week No 28-35	noodles. 46.4 Prepare rice and noodles 46.5 Final presentation 46.6 Maintain safety
47. Demonstrate the uses of sauces, spices and condiments for finished dishes in Chinese cuisine.	Item No 9.1.2 , Block II (On-the- Job Training), (Optional– Place of European Cuisine) Week No 36-38	47.1 Maintain perfect hygiene standard 47.2 Select sauces, spices and condiments 47.3 Demonstrate the uses of sauces, spices and condiments for finished dishes in Chinese cuisine. 47.4 Final presentation 47.5 Maintain safety

9. Syllabus

9.1 Basic Training (Block – I & II)

Duration: 6 months

GENERAL INFORMATION

- | | |
|------------------------------------|---|
| 1) Name of the Trade | : Food Production General |
| 2) Hours of Instruction | : 24 weeks (920Hrs). |
| 3) Batch size | : 20 apprentices (Maximum per batch) |
| 4) Power Norms | : 1.5 kw |
| 5) Space Norms | : 4 sq.m. of classroom space per apprentice |
| 6) Examination | : The examination will be held on completion of each block. |
| 7) Relevance MES Course | : NO |
| 8) Instructor Qualification | : |

i) Degree or equivalent in Hotel and Hospitality Administration/Hotel Management with minimum 3 years working experience in the relevant field.

OR

ii) NTC/NAC/Diploma in Food production or catering technology with minimum 5 years working experience in the relevant field.
Craft Instructor Certificate (CIC) is desirable

9) Tools, Equipment & Machinery required: As per Annexure – I

9.1.1 Detailed Syllabus of Core Skill

Block – I
Basic Training

Topic No.	Vocational Calculation & Science	Duration (in hours)
1	Pronunciation : - Phonetics and pronouncing simple words	10 hrs
	Listening : - Interpreting conversation and discussions related to everyday life, Responding to spoken instructions in order to carry out requests and commands	
	Speaking : - Asking and answering simple questions in English to describe people, things, situations and events.	
	Reading : - Reading and interpreting simple sentences, forms, hoardings, sign boards and notices	
	Writing : - Writing sentences with simple words, reply to everyday office correspondence, - Writing CV & simple application forms.	
2	Percentage: Introduction, Simple calculation. Changing percentage to decimal and fraction and vice-versa.	40 hrs
	Unit: Systems of unit- FPS, CGS, MKS/SI unit, unit of length, Mass and time, Conversion of units	
3	Material Science: properties – Physical & Mechanical, Types – Ferrous & Non-Ferrous, Difference between Ferrous and Non-Ferrous metals, Introduction of Iron, Types; Steel, Types Introduction to Copper, Brass, Aluminum, Alloys Properties of Food grade materials particularly Stainless steel (SS), SS types and uses, Introduction to corrosion and control	
	Mass, Weight and Density: Mass, Unit of Mass, Weight, difference between mass and weight, Density, unit of density, specific gravity.	
	Basic of Work, Power and Energy	

Block – II

Basic Training

Topic No.	b) Vocational Calculation & Science	Duration(in hours)
1	Algebra: Algebraic formula, Linear equations (with two variables).	50 hrs
2	Menstruation: Area and perimeter of square, rectangle, parallelogram, triangle, circle, semi circle, Volume of solids - cube, cuboid, cylinder and sphere. Surface area of solids -cube, cuboid, cylinder and sphere.	
3	Heat & Temperature: Heat and temperature, Types of heat- sensible and latent heat their units, difference between heat and temperature; Temperature scales- Celsius, Fahrenheit and Absolute: their interrelations boiling point, melting point, and freezing point; Instruments - thermometer, pyrometer, Modes of heat transfer/transmission- conduction, convection and radiation	
4	Basic Electricity: Introduction, use of electricity, Production, Types of current_ AC, DC, their comparison, Terminology - voltage, resistance, their units; Conductors and insulators Types of connections - series, parallel, electric power, Horsepower, energy, unit of electrical energy.	

Topic No.	b) Vocational Calculation & Science	Duration (in hours)
1	Introduction to Accountancy	50hrs
2	Income, Expense, recording income & expenses	
3	Credit & Debit – basic concepts & rules of accounting principles	
4	Principle, Interest – concepts of simple & compound interest	
5	Profit & Loss – basic concepts, interpret a statement	
6	Taxes – Income, Sales, VAT,	

9.1.2 Detail Syllabus of Professional Skill & Professional Knowledge
Block –I
Basic Training

Week No.	Professional Skills	Professional Knowledge
	Practical	Theory
1		Introduction to Food Industry Farming to Table – The entire supply chain. Different types of catering establishments Hotels / Restaurants Hospitals / Institutions Industrial / Canteens Transport Catering – Cruises, Rail 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 Industry
2	Identification of kitchen tools & instruments and it's specific usage (Knives in particular)	Knowledge about small, medium and large instruments. What are they made of? Common brands & manufacturers. Approximate costs
	Identification of basic processing / cooking equipment (light & heavy)	Knowledge about small, medium and large processing / cooking equipment. What are they made of? 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 only Specific use & benefits of Copper, Brass.
	Cleaning, maintaining and storage of tools & equipment	Cleaning Chemical & agents and usage
		Introduction to basic food safety. Biological, Chemical & Physical adulteration / spoilage that can happen
	Basic hygiene practices to be observed in kitchen	Personal hygiene Grooming requirements & recommended scheduled by which they have to be practiced Care of skin, hand, feet, Food handlers hygienic protective clothing Working area hygiene: -its importance

	Safety practices to be observed in kitchen	Safety rules for using different types of knives and other equipment Introduction to basic first aid theory How to treat minor injuries – Cuts, scalds & burns
--	--	--

Block –I Basic Training

Week No.	Professional Skills	Professional Knowledge
	Practical	Theory
3-5	<p>Demonstrations Pre-Preparation of Ingredients (Mise-en-place) Washing & cleaning Separation of edible & non-edible parts Peeling, coring, shelling, de-skinning, de-boning, rendering. Shredding, Grinding, Mincing, Pounding,</p> <p>Cutting (mainly vegetable & fruits): Brunoise, Chiffonade, Jardinere, Julienne, Macedoine, Paysanne, Matignone, Slices, Paring, Turned, Wedges, Allumette, Fluting of mushrooms, Turning Carrots and Potatoes</p> <p>Meat, Fish, Poultry & Pork Lamb Chops, Noisettes, Lamb Rack, Roast Leg, Deboned Leg / Shoulder, Deboned Shoulder for stuffing</p> <p>Steaks with weights, Chateaubriand, Filet Mignons, Tournedoes, Escalopes</p> <p>Filet, Darne or steaks, Delice, Double filet, Paupiette, Gujon, Gujonette, Trocon, Fileting & Skinning</p> <p>Crustaceans, Molluscs, Molluscs (without shells)</p>	<p>Identification of basic food raw material through photographs</p> <p>Classification of raw materials Meat, Fish, Seafood, Poultry & Pork Fruits & Vegetables Cereals & Pulses Spices, Condiments, Herbs & additives</p> <p>Types and identification of the same.</p> <p>Basic cuts of: Beef Veal Lamb Fish Chicken Pork</p>

	<p>Wings, Breast / Filet, Thigh, Drumstick, Derby, Galantine, Picatta, Noisette</p> <p>Pork Chops, Pork Loin, Medallion</p>	
6	<p>Method of mixing foods: Blending, Dissolving, Emulsifying, Whipping, Folding, Beating, Creaming, Kneading, Marinating</p>	
		<p>Culinary terms in English & respective European Languages for European Cuisines. Indian Language for Indian Cuisine.</p>
7	<p>Marinades & Rubs: Dry & Moist marinades Preparing Marinades: Oil based Citrus juice or vinegar base Yoghurt base Rubs that based on dry powered spices</p>	<p>Marination: Use, science and effect on food (usually meats)</p>
		<p>Yield and Wastage Weights and Measures</p>
8-9	<p>Demonstration: Uncooked & Cooked Salads Vegetable Salads Leafy Salads Fruit Salads Salads with cooked meats Whole meal Salads Indian green salad Salad Dressings: Vinaigrette Dressing Oil based dressings Citrus juice dressings Derivatives</p>	<p>Salads and Salad Dressings</p>
	<p>Demonstration of cooking methods: Baking Broiling Frying Griddling Grilling Roasting Saute / Stir Fry</p>	<p>Methods of Cooking & effect of heat on foods</p> <p>Dry Heat, Moist Heat and Microwave Heating</p>

10-11	To be demonstrated on (as applicable): Meat, Fish & Poultry Fruits & Vegetable Cereals & Pulses	
		Regional Cuisine in India
		List of utensils & equipment – Material, uses, cleaning & storage
		Spices & Herbs – Identification & Uses
		Effect of heating on various food ingredients
		Marinades used in Indian Cuisine
		Raita, Chutney & Dips
	Tandoor Dishes (includes seasoning, lighting & controlling a tandoor)	
	Demonstrations:	
12-13	Basic Indian Gravy Base Tomato & Onion Cashew Tomato Yoghurt	
	Final finish & presentation of dishes	Tempering (Tadka) & Garnishes
	Rice, Pulaos, Biryani&Daals - 3 preparations in each	
	Assessment/Examination	

Block – II
Basic Training

Week No.	Professional Skills	Professional Knowledge
	Practical	Theory
1-2	<p>Demonstrations:</p> <p>Stocks, Soups & Sauces Demonstration: White Veal Stock Chicken Stock Brown Stock Fish Stock Vegetable Stock Demonstration of one soup in each type</p> <p>Demonstration of one sauce in each type & a derivative</p>	<p>Stocks, Soups & Sauces Recipes: White Stock (Chicken or Lamb) Brown Stock Fish Stock Vegetable Stock Classification of Soups: Thick – Puree Cream Veloute Bisque Chowder Thin – Unpassed Broths Boullion Thin – Passed Consomme Cold & International Sauces Roux & Kitchen Sauces Bechamel Veloute Espangnole Hollandaise Bearnaise Mayonnaise Tomato (Kitchen) Sauce</p>
3-4	<p>Hordoeuvres, Canapes, Sandwiches Demonstration on 6 varieties of each</p>	<p>Hordoeuvres, Canapes, Sandwiches – including, open, toasted, grilled and multi-layered sandwiches</p>
5-6	<p>Breakfast Egg Preparation: One Each Boiled Scrambled Fried Poached Omelets Egg Cookery in classical dishes</p>	<p>Egg Structure Selection & assessing quality of eggs Various ways of cooking eggs with examples in each</p>
7-8	<p>Preparation & Cooking of Vegetables European Cuisine Potatoes – 3 varieties Vegetables – 3 varieties</p>	<p>Vegetables: - Classification Selection & assessing quality Season availability</p>

		Effect of heat on different vegetables in acid/alkaline medium Reaction with metal
9-10	Preparation & Cooking of Non-vegetarian dishes (with different cooking methods): European Cooking Fish – 4 dishes Veal / Beef – 2 dishes Lamp / Mutton – 2 dishes Pork – 2 dishes Game Birds – 2 dishes Chicken – 2 dishes	Butchery- Cut: of beef, Lamb, mutton and Pork, Poultry and game. Their uses and weight and connect which part is best suited which dishes
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 Pasta & it's varieties Varieties & types
12	Bakery & Confectionery 5 finished dishes from each base dough & pastes Breakfast breads – 10 varieties Waffles & Pancakes Cookies Basic Calligraphy for cake decoration	Basic Dough & Pastes Bread Dough & it's types Puff paste Choux paste Short crust paste Danish paste Cakes: Angel Cake Sponge Genoise Pound Cake Cheese Cake Puddings
13		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		

9.1.3 Employability Skills

GENERAL INFORMATION

- 1) **Name of the subject** : **EMPLOYABILITY SKILLS**
- 2) **Applicability** : **ATS- Mandatory for fresher only**
- 3) **Hours of Instruction** : **110 Hrs**
- 4) **Examination** : **The examination will be held at the end of Block I & II of Basic Training.**
- 5) **Instructor Qualification** :

i) MBA/BBA with two years experience or graduate in sociology/social welfare/Economics with two years experience and trained in Employability skill from DGET Institute .

And

Must have studied in English/Communication Skill and Basic Computer at 12th /diploma level

OR

ii) Existing Social Study Instructor duly trained in Employability Skill from DGET Institute.

9.1.3.1 Syllabus of Employability Skills

Block – I Basic Training

Topic No.	Topic	Duration (in hours)
	English Literacy	15
1	Pronunciation : Accentuation (mode of pronunciation) on simple words, Diction (use of word and speech)	
2	Functional Grammar Transformation of sentences, Voice change, Change of tense, Spellings.	
3	Reading Reading and understanding simple sentences about self, work and environment	
4	Writing Construction of simple sentences Writing simple English	
5	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.	
	I.T. Literacy	15
1	Basics of Computer Introduction, Computer and its applications, Hardware and peripherals, Switching on-Starting and shutting down of computer.	
2	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.	
3	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	
4	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.	
	Communication Skill	25
1	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. Case study/Exercise	
2	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.	
3	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. Case study/Exercise	
4	Facing Interviews Manners, Etiquettes, Dress code for an interview Do's & Don'ts for an interview	
5	Behavioral Skills Organizational Behavior Problem Solving Confidence Building Attitude Decision making Case study/Exercise	

Block– II

Basic Training

Topic No.	Topic	Duration (in hours)
	Entrepreneurship skill	10
1	Concept of Entrepreneurship Entrepreneurship- 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.	
2	Project Preparation & Marketing analysis Qualities of a good Entrepreneur, SWOT and Risk Analysis. Concept & application of Product Life Cycle (PLC), Sales & distribution Management. Different Between Small Scale & Large Scale Business, Market Survey, Method of marketing, Publicity and advertisement, Marketing Mix.	
3	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.	
4	Investment Procurement Project formation, Feasibility, Legal formalities i.e., Shop Act, Estimation & Costing, Investment procedure - Loan procurement - Banking Processes.	
	Productivity	10
1	Productivity Definition, Necessity, Meaning of GDP.	
2	Affecting Factors Skills, Working Aids, Automation, Environment, Motivation How improves or slows down.	
3	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.	
4	Personal Finance Management Banking processes, Handling ATM, KYC registration, safe cash handling, Personal risk and Insurance.	
	Occupational Safety, Health & Environment Education	10
1	Safety & Health Introduction to Occupational Safety and Health importance of safety and health at workplace.	

2	Occupational Hazards Basic Hazards, Chemical Hazards, Vibro-acoustic Hazards, Mechanical Hazards, Electrical Hazards, Thermal Hazards. Occupational health, Occupational hygienic, Occupational Diseases/ Disorders & its prevention.	
3	Accident & safety Basic principles for protective equipment. Accident Prevention techniques - control of accidents and safety measures.	
4	First Aid Care of injured & Sick at the workplaces, First-Aid & Transportation of sick person	
5	Basic Provisions Idea of basic provision legislation of India. of safety, health, welfare under legislation of India.	
6	Ecosystem Introduction to Environment. Relationship between Society and Environment, Ecosystem and Factors causing imbalance.	
7	Pollution Pollution and pollutants including liquid, gaseous, solid and hazardous waste.	
8	Energy Conservation Conservation of Energy, re-use and recycle.	
9	Global warming Global warming, climate change and Ozone layer depletion.	
10	Ground Water Hydrological cycle, ground and surface water, Conservation and Harvesting of water	
11	Environment Right attitude towards environment, Maintenance of in-house environment	
	Labour Welfare Legislation	5
1	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.	
	Quality Tools	5
1	Quality Consciousness : Meaning of quality, Quality Characteristic	
2	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.	
3	Quality Management System : Idea of ISO 9000 and BIS systems and its importance in maintaining qualities.	
4	House Keeping : Purpose of Housekeeping, Practice of good Housekeeping.	
5	Quality Tools Basic quality tools with a few examples	
	Leadership and Team Building skills.	5
	Leadership Discipline and Morale Team Work Case Study/ Exercise	

	Meet the Mentor Role - play as a Supervisor	5
	Organizing and Planning.	5
	Time Management Group Dynamics Case Study/ Exercise	

9.2 Practical Training (On-Job Training)

(Block – I & II)

Duration: 18 Months

GENERAL INFORMATION

- 1) **Name of the Trade** : **FOOD PRODUCTION GENERAL**
- 2) **Duration of On-Job Training** : As per Apprenticeship Act amended time to time.
- 3) **Maximum batch size** : 20
- 4) **Examination** : i) The examination will be held on the completion of each Block
ii) NCVT exam will be conducted at the end of 2nd year
- 5) **Instructor Qualification** :

i) Degree or equivalent in Hotel and Hospitality Administration/Hotel Management with minimum 3 years working experience in the relevant field.

OR

ii) NTC/NAC/Diploma in Food production or catering technology with minimum 5 years working experience in the relevant field.

Craft Instructor Certificate (CIC) is desirable

- 6) **Tools, Equipments & Machinery required** : - As per Annexure – II
- 7) **Method of delivery** : This training is to be imparted in an establishment/industry utilizing suitable methods as listed below.
 - a) Lecture
 - b) Lesson
 - c) Demonstration
 - d) practice
 - e) group discussion
 - f) discussion with peer group
 - g) project work

9.2.1 DETAIL SYLLABUS OF PROFESSIONAL SKILL & PROFESSIONAL KNOWLEDGE

Block – I (On-the-Job Training)

Week No.	Professional Skills	Professional Knowledge
	Practical	Theory (Review at OJT Unit)
1-3	Indian Cuisine	Regional Cuisine in India
		List of utensils & equipment – Material, uses, cleaning & storage
4-5	Spices & Herbs used	Spices & Herbs – Identification & Uses
6-9	Basic cooking methods (with specific utensils) Boil Steam Pan (tawa) griddle Shallow Fry Deep Fry	Effect of heating on various food ingredients
10-12	Basic Pre-preparation	
13-15	Marinades & Marination	Marinades used in Indian Cuisine
16-19	Raita, Chutney & Dips Practicing – settings of curd & mixing	Raita, Chutney & Dips
20-24	Tandoor Dishes (includes seasoning, lighting & controlling a tandoor) Kebabs	Tandoor Dishes (includes seasoning, lighting & controlling a tandoor)
25-26	Tandoor Dishes Indian Breads	
27-29	Basic Indian Gravy Base Tomato & Onion Cashew Tomato Yoghurt	
30-33	Indian Dishes with Gravy Fish – 10 preparations Seafood – 5 preparations Mutton – 5 preparations Chicken – 10 preparations Vegetables – 10 preparations	
34-35	Final finish & presentation of dishes	Tempering (Tadka) & Garnishes
36	Rice, Pulaos, Biryani & Daals 6 preparations in each	
37-38	Revision/ Project work	
39	Assessment / Examination	

Block – II (On-the-Job Training)

Week No.	Professional Skills	Professional Knowledge
	Practical	
1-5	Stocks, Soups & Sauces Demonstration: White Veal Stock Chicken Stock Brown Stock Fish Stock Vegetable Stock Demonstration of one soup in each type	
6-9	Hordoeuvres, Canapes, Sandwiches Demonstration on 6 varieties of each	
10-14	Breakfast Egg Preparation: Boiled Scrambled Fried Poached Omelets Egg Cookery in classical dishes	
15-20	Preparation & Cooking of Vegetables European Cuisine Potatoes – 10 varieties Vegetables – 10 varieties	
21-26	Preparation & Cooking of Non-vegetarian dishes (with different cooking methods): European Cooking Fish – 10 dishes Veal / Beef – 5 dishes Lamb / Mutton – 5 dishes Pork – 5 dishes Game Birds – 5 dishes Chicken – 10 dishes	
27-30	Preparation & Cooking of Cereals, Farinaceous and Pulses Cooking of Rice Cooking of beans & pulses Cooking of Pasta – 5 varieties Cooking of Pasta sauces – 5 varieties	
31-34	Bakery & Confectionery 5 finished dishes from each base dough & pastes Breakfast breads – 10 varieties Waffles & Pancakes	

	Cookies Basic Calligraphy for cake decoration	
35-36		Prevailing food standards in India Food adulteration as a public health hazard Sample tests in the detection of common food HACCP/ISO22001
37-38	Revision/ Project work	
39	Assessment / Examination	

Block – II (On-the-Job Training) (Optional – Place of European Cuisine)

Week No.	Professional Skills	Professional Knowledge
	Practical	Theory
1-6	Chinese Cuisine (to be added)	Chinese Cuisine
		List of utensils & equipment – Material, uses, cleaning & storage
7-9	Identify and describe specifications for ingredients used across the cuisine	Specifications and criteria of all raw material and processed food products
10-15	Basic Pre-preparation	Cutting skills specific Chinese cuisine Soaking and Marinating
16-19	Types of dim-sums doughs, storage, folding & cooking of dim-sums	Dim-Sums – dough - preparation
20-26	Basic cooking methods (specific to cuisine with specific utensils) Braising Quick boiling Scalding Bake stewing Simmering & steaming Deep Frying Stir-frying Pan-frying (special emphasis in the use of a Wok) Sauteing Baking Smoking	Effect of heating & different temperature range on ingredients with different cooking methods
27-34	Cooking for Rice & Noodles that are finished of dishes	Rice & Noodles – types and preparation
35-36	Knowledge, identify and demonstrate the uses of proprietary sauces, spices and condiments in the cooking for finished dishes in Chinese cuisine	Knowledge of proprietary sauces, spices and condiments
37-38	Revision/Project work	
39	Assessment / Examination	

10 Assessment Standard

10.1 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 to be given while assessing for team work, avoidance/reduction of scrap/wastage and disposal of scarp/wastage as per procedure, behavioral attitude and regularity in training.

The following marking pattern to be adopted while assessing:

a) Weightage in the range of 60-75% to be allotted during assessment under following performance level:

For this grade, the candidate with occasional guidance and showing due regard for safety procedures and practices, has produced work which demonstrates attainment of an acceptable standard of craftsmanship.

In this work there is evidence of:

- good skill levels in the use of hand tools, machine tools and workshop equipment
- many tolerances while undertaking different work are in line with those demanded by the component/job.
- 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 under following performance level:

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.

In this work there is evidence of:

- good skill levels in the use of hand tools, machine tools and workshop equipment
- the majority of tolerances while undertaking different work are in line with those demanded by the component/job.
- 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 under following performance level:

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.

In this work there is evidence of:

- high skill levels in the use of hand tools, machine tools and workshop equipment
- tolerances while undertaking different work being substantially in line with those demanded by the component/job.
- a high level of neatness and consistency in the finish.
- minimal or no support in completing the project

10.2 INTERNAL ASSESSMENTS (FORMATIVE ASSESSMENT)

COMP. NO.	COMPETENCY	INTERNAL MARKS
	GENERIC COMPETENCIES (Applicable to each Block)	
1.	Recognize & comply safe working practices, environment regulation and housekeeping.	
2.	Work in a team, understand and practice soft skills, technical English to communicate with required clarity.	
3.	Demonstrate knowledge of concept and principles of basic arithmetic, algebraic, trigonometric, statistics and apply knowledge of specific area to perform practical operations.	
4.	Understand and explain the concept in quality tools, and labour welfare legislation and apply such in day to day work to improve productivity & quality.	
5.	Explain energy conservation, global warming and pollution and contribute in day to day work by optimally using available resources.	
6.	Explain personnel finance, entrepreneurship and manage/organize related task in day to day work for personal & societal growth.	
7.	Understand and apply basic computer working, basic operating system and uses internet services to get accustomed & take benefit of IT developments in the industry.	
	SPECIFIC COMPETENCIES	
8.	<p>BLOCK I (Theory) Industry Related Knowledge</p> <ul style="list-style-type: none"> • Explain different food industry, career opportunities, duty & responsibility of kitchen service. • Identify kitchen and cooking tools, instruments & equipments and chemical and cleaning agents used for kitchen tools and equipments. • Express basic food safety and personal hygienic. <p>BLOCK I (Theory) PRE-PREPARATION (Common to all cuisines)</p> <ul style="list-style-type: none"> • Demonstrate pre-preparation of ingredients. • Demonstrate cutting of fruits and vegetables. • Prepare meat, fish, poultry and pork. • Demonstrate different mixing method of foods. • Demonstrate marinades & rubs. • Prepare different types of salads and its dressing. • Demonstrate cooking methods and explain effect of heat on foods. • Demonstrate basic Indian gravy such as Tomato, Onion, Cashew and Yoghurt. 	

	<ul style="list-style-type: none"> • Demonstrate rice, pulaos, biryanis and daals by using kitchen tools. <p>Block – I (On-the-Job Training) COOKING & Preparations – Indian Cuisine</p> <ul style="list-style-type: none"> • Identify Utensils & equipments and chemical and cleaning agents used for kitchen tools and equipments. • Identify spices and herbs • Demonstrate cooking methods with specific utensils and explain effect of heat on foods. • Prepare Raita, chutney and dips by using appropriate machines and kitchen tools. • Prepare Indian breads and Tandoor dishes such as Kebabs. • Prepare basic Indian gravy such as Tomato, Onion, Cashew and Yoghurt. • Prepare dishes with gravy both veg and non-veg. • Prepare rice, pulaos, biryanis and daals by using kitchen tools. 	
	SUB TOTAL FOR BLOCK I	250
9.	<p>BLOCK II (On-the-Job Training) COOKING & BAKING – European Cooking</p> <ul style="list-style-type: none"> • Demonstrate and explain stocks, soups and sauces by using kitchen tools. • Demonstrate hor d’ oeuvres , canapés and sandwiches. • Prepare different products from eggs such as boiled, scrambled, fried, poached and omelets. • Prepare and cook vegetables for European cuisine. • Prepare and cook non vegetarian dishes from fish, beef/veal, lamp/mutton, pork, game birds and chicken. • Prepare and cook rice, beans & pulses, pasta and pasta sauces. • Prepare bakery and confectionery products such as breakfast breads, waffles & pancakes, cookies and basic calligraphy for cake decoration. <p>Block – II (On-the-Job Training) COOKING & BAKING – European Cooking</p> <ul style="list-style-type: none"> • Prepare and explain stocks, soups and sauces by using kitchen tools. • Prepare hor d’ oeuvres , canapés and sandwiches. • Prepare different products from eggs such as boiled, scrambled, fried, poached and omelets. • Prepare and cook vegetables for European cuisine. • Prepare and cook non vegetarian dishes from fish, beef/veal, lamp/mutton, pork, game birds and chicken. 	

	<ul style="list-style-type: none"> • Prepare and cook rice, beans & pulses, pasta and pasta sauces. • Prepare bakery and confectionery products such as breakfast breads, waffles & pancakes, cookies and basic calligraphy for cake decoration. • Explain food safety standards and food adulteration. <p>Block – II (Optional – Place of European Cuisine) COOKING & Preparations – Chinese Cuisine</p> <ul style="list-style-type: none"> • Identify Utensils & equipments and chemical and cleaning agents used for kitchen tools and equipments. • Prepare dim-sums by using appropriate machines and tools. • Demonstrate cooking methods with specific utensils and explain effect of heat on foods. • Prepare rice and noodles by using appropriate machines and tools. • Demonstrate the uses of sauces, spices and condiments for finished dishes in Chinese cuisine. 	
	SUB TOTAL FOR BLOCK II	250
	TOTAL INTERNAL MARKS	500

10.3 FINAL ASSESSMENT- ALL INDIA TRADE TEST (SUMMATIVE ASSESSMENT)

	SUBJECTS	Marks	Internal assessment based on competency	Full Marks	Pass Marks	Duration of Exam.
Block – I & II	Block - I		250	250	150	
	Professional Skill	250		250	150	08 hrs.
	Professional Knowledge	100		100	40	3 hrs.
	Vocational Cal. & Sc.	50		50	20	3 hrs.
	Employability Skill	50		50	20	3 hrs.
	Block - II		250	250	150	
	TOTAL for Block – I & II	450	500	950	530	
Grand Total		500				

Marks Distribution TOTAL: 950 marks for I & II Blocks Pass marks: 530

Note: - The candidate pass in each subject conducted under all India trade test.

11. Further Learning Pathways

- On successful completion of the course trainees can opt for Diploma course (Lateral entry).
- On successful completion of the course trainees can opt for CITS course.

Employment opportunities:

On successful completion of this course, the candidates shall be gainfully employed in the following industries:

1. Hotels.
2. Food Production Industry.
3. Self employment

12. LIST OF EXPERT MEMBERS

Sr No	Name of experts	Organization/University
1.	Jayant Krishna Principal Consultant	M/S TATA Consultancy Service Ltd., Lucknow
2.	Mr Arul Mani	Taj Hotel Group, New Delhi
3.	Mr Raminder Sharma	RVTI, Panipat
4.	Dr Vikas Nanda	S.L.I.E.T, Longowal, Punjab
5.	Dr D.C Sexana	S.L.I.E.T, Longowal, Punjab
6.	Dr Neeraj	N.I.F.T.E.M, Sonapat, Haryana
7.	Mr Jeevan Jyoti panda	Govt Polytechnic, Berhampur, Odisha
8.	Mr Santosh Patra	Govt Polytechnic, Berhampur, Odisha
9.	Mr Narender Kumar	P.HD Scholar, S.L.I.E.T, Longowal, Punjab
10.	Er Navdeep Jindal	S.L.I.E.T, Longowal, Punjab
11.	Sandeep Kumar	Instructor I.T.I, Nabha, Punjab
12.	Mr K. L. Kuli	CSTARI, Kolkata

Annexure – I

LIST OF TOOLS & EQUIPMENTS FOR 20 TRAINEES
TRADE: FOOD PRODUCTION GENERAL
(Basic Training)

A: TRAINEES TOOL KIT:-

Sl. No.	Name of the items	Quantity
1	Knife Kit – Chef's Knife Filet Knife Paring Knife Peeler Knife Sharpner	1 each
2	Wiping Cloth	3 Sets (2 Nos.)
3	Apron	3 Nos
4	Kitchen Shoes (slip on, round front, anti slip)	2 Pairs

Training Kitchen

S. No.	Equipment	Essential or Desirable
1	Working tables (Steel)	E
2	L.P. Gas Cooking Range	E
3	Ovens	E
4	Grillers	E
5	Tandoor and Skewer	E
6	Cooking Range (High Pressure)	E
7	Griddle (Cooking plate)	E
8	Dry Store	D
9	Refrigeration and Deep Freeze	D
10	Black Board	D
11	Trainer's Table	D
12	Required Electric, Gas Connections, Lighting & Air Conditioning	D
13	Dish Wash Area with required Sink & water supply	E
14	Pot Wash Area with required water supply	E
15	Grinding Stone	E
16	Coconut Grater	D
17	Grinder Machine	D
18	Blender/Mixer	D
19	Dough or batter Maker	D
20	Mixer	D
21	Weighing Machine	E
22	Chopping Boards - Plastic with HACCP Colour Coding	E
23	Cutting Knives (Full Set)	E
24	Frying Pan-Non-Stick/Small/Medium/Large	E
25	Kadai-Large/Small	E
19	Heavy Bottom Pan Small/Big	E
20	Aluminum Degchi-15Ltr./12 Ltr.	E
21	Tawa- General/Large	E
22	Wok (Chinese Kadai)	E
23	Cooker-1 Ltr. / 2 Ltr.,	E
24	Strainers-Conical/Strainers)	E
25	Steel Bowls-Small/Medium/Big	E
26	Collander	E
27	Baking Try	E
28	Holder(Tongs/bowl)	

29	Saucepan	E
30	Plastic Trays-Big/Small	D
31	Pie Dish	D
32	Steel Plates	D
33	Containers (For keeping dry items)	E
34	Serving dish	E
35	Bread, Cake & assorted moulds	E
36	Roiling Pin and Rolling Base	E
37	Mandolin Grater	D
38	Wooden Spatula	E
39	Perforated Spoon	E
40	Steel Slicer	E
41	Steel Basin	D
42	Steel Ladles	D
43	Steel & Plastic Mugs	D
44	Steel Spoons	D
45	Balloon Whisk	E
46	Measuring Jars	E
47	Thermometers (including meat thermometer)	E
48	Dustbins	E
49	Chart denoting the Do's' and Don'ts Kitchen	E
50	First Aid Kit and Fire Extinguishers	E

**Infrastructure for Vocational Calculation & Science and Employability Skills
(Basic Training)
TRADE: FOOD PRODUCTION GENERAL
LIST OF TOOLS & EQUIPMENTS FOR 20 TRAINEES**

A:-

Sl. No.	Name of the items	Quantity
1	Black / White Board (1200 mm x 90 mm)	1
2	Computer (PC) with latest configurations and Internet connection with standard operating system and standard word processor and worksheet software	10 No
3	UPS	As required
4	Scanner cum Printer	1
5	Computer Tables	10
6	Computer Chairs	10
7	LCD Projector	1
8	Writing Stationery	As required

B : Instruments & General Shop Outfit

Sl. No.	Name of the items	Quantity
1	Classroom to seat 20 trainees	
2	Writing Table & Chair for each Trainee	
3	Soft boards for posters / notices	
4	Lighting (natural & artificial)	
5	Ventilation, air-conditioning (temperature & humidity and air quality measurement)	

Annexure – II

TRADE: FOOD PRODUCTION
Practical Training (On-job Training)
LIST OF TOOLS& EQUIPMENTS FOR 20 TRAINEES

Repeated from training kitchen

S. No.	Equipment	Essential or Desirable
1	Working tables (Steel)	E
2	L.P. Gas Cooking Range	E
3	Ovens	E
4	Grillers	E
5	Tandoor and Skewer	E
6	Cooking Range (High Pressure)	E
7	Griddle (Cooking plate)	E
8	Dry Store	D
9	Refrigeration and Deep Freeze	D
10	Black Board	D
11	Trainer's Table	D
12	Required Electric, Gas Connections, Lighting & Air Conditioning	D
13	Dish Wash Area with required Sink & water supply	E
14	Pot Wash Area with required water supply	E
15	Grinding Stone	E
16	Coconut Grater	D
17	Grinder Machine	D
18	Blender/Mixer	D
19	Dough or batter Maker	D
20	Mixer	D
21	Weighing Machine	E
22	Chopping Boards - Plastic with HACCP Colour Coding	E
23	Cutting Knives (Full Set)	E
24	Frying Pan-Non-Stick/Small/Medium/Large	E
25	Kadai-Large/Small	E

19	Heavy Bottom Pan Small/Big	E
20	Aluminum Degchi-15Ltr./12 Ltr.	E
21	Tawa- General/Large	E
22	Wok (Chinese Kadai)	E
23	Cooker-1 Ltr. / 2 Ltr.,	E
24	Strainers-Conical/Strainers)	E
25	Steel Bowls-Small/Medium/Big	E
26	Collander	E
27	Baking Try	E
28	Holder(Tongs/bowl)	
29	Saucepan	E
30	Plastic Trays-Big/Small	D
31	Pie Dish	D
32	Steel Plates	D
33	Containers (For keeping dry items)	E
34	Serving dish	E
35	Bread, Cake & assorted moulds	E
36	Rolling Pin and Rolling Base	E
37	Mandolin Grater	D
38	Wooden Spatula	E
39	Perforated Spoon	E
40	Steel Slicer	E
41	Steel Basin	D
42	Steel Ladles	D
43	Steel & Plastic Mugs	D
44	Steel Spoons	D
45	Balloon Whisk	E
46	Measuring Jars	E
47	Thermometers (including meat thermometer)	E
48	Dustbins	E
49	Chart denoting the Do's' and Don'ts Kitchen	E
50	First Aid Kit and Fire Extinguishers	E

B: Instruments & General Shop Outfit

SI. No.	Name of the items	Quantity
1	Lighting (natural & artificial)	
2	Ventilation, air-conditioning (temperature & humidity and air quality measurement)	
3	Minimum recommended space for prevention of accidents	
4	Trolleys & other aids to lift and move heavy	
5	Safety gear while working on heavy duty equipment & preventing contamination of food Steel mesh gloves	

C: General Machinery Installations –

SI. No.	Name & Description of Machines	Quantity
	A machinery / equipment are not essential, but desirable and intended for heavy pay load	As per size of establishment
1	Walk – in coolers and deep freeze	As required
2	Deep fat fryers	As required
3	3- tier ovens	As required
4	Combi – ovens	As required
5	Steam boilers / Tandoors / Griddle plates	As required
6	High pressure gas stoves	As required
7	Industrial scale – peeling, slicing, chopping machines	As required
8	Meat mincers	As required
9	Dough kneaders & sheeters, Beater / mixers for batters	As required
10	Wet Grinders	As required

ANNEXURE-III**GUIDELINES FOR INSTRUCTORS AND PAPER SETTERS**

1. All the questions of theory paper for the trade will be in objective type format.
2. Due care to be taken for proper & inclusive delivery among the batch. Some of the following some method of delivery may be adopted:
 - A) LECTURE
 - B) LESSON
 - C) DEMONSTRATION
 - D) PRACTICE
 - E) GROUP DISCUSSION
 - F) DISCUSSION WITH PEER GROUP
 - G) PROJECT WORK
 - H) INDUSTRIAL VISIT
3. Maximum utilization of latest form of training viz., audio visual aids, integration of IT, etc. may be adopted.
4. The total hours to be devoted against each topic may be decided with due diligence to safety & with prioritizing transfer of required skills.
5. Questions may be set based on following instructions:-

Sl. No.	Question on different aspect	Weightage in %age	Key Words may be like
1	Information received	25	What, Who, When
2	Knowledge	50	Define, Identify, Recall, State, Write, List & Name
3	Understanding	15	Describe, Distinguish, Explain, Interpret & Summarize
4	Application	10	Apply, Compare, Demonstrate, Examine, Solve & Use

6. Due weightage to be given to all the topics under the syllabus while setting the question paper.

