

MAHARASHTRA STATE BOARD OF VOCATIONAL EDUCATION EXAMINATION, MUMBAI

1	Name of Syllabus	C.C.In Cereal, Pulses & Oilseed Processing (401106)							
2	Max. Nos of Student	25 Students							
3	Duration	6 Months							
4	Type	Full Time							
5	Nos Of Days / Week	6 Days							
6	Nos Of Hours /Day	7 Hrs							
7	Space Required	Workshop = 1000 Sq feet Class Room = 200 Sq feet TOTAL = 1200 Sq feet							
8	Entry Qualification	S.S.C.							
9	Objective Of Syllabus introduction	Awareness of Safety precautions Knowledge of Engineering skill, use of tools in Food Processing. Awareness of Food Preservation. Awareness of Bakery & Confectionary. Awareness of Milk & Dairy Product. Awareness of Cereal, Pulses & Oilseed Processing Awareness of Food Beverages. Awareness of Processed Food.							
10	Employment Opportunity	The trainee will either to be able to take up jobs with agencies which Maintain Develop Cereal, Pulses & Oilseed Processing or with working experience will be in a position to start his own independent Business.							
11	Teacher's Qualification	Diploma in Food Processing/ Hotel Management. With 3 year Teaching experience in Cereal, Pulses & Oilseed Processing.							
12	Training System	Training System Per Week							
13	Exam. System	Sr. No.	Paper Code	Name of Subject	TH/PR	Hours	Max. Marks	Min. Marks	
		1	40110611	Cereal, Pulses & Oilseed Processing	TH-I	3 hrs	100	35	
		2	40110621	Agro Processing & Processed Food	PR-I	3 hrs	100	50	
		3	40110622	Cereal, Pulses & Oilseed Processing.	PR-II	6 hrs	200	100	
				TOTAL			400	185	

Cereal, Pulses & Oilseed Processing

<i>Practical – II - Cereal, Pulses & Oilseed Processing</i>	<i>Theory – I - Cereal, Pulses & Oilseed Processing.</i>
Market carryout survey for the competition among the available bakery products	Introduction to industrially important cereals, pulses and oilseeds, importance, role and share of bakery and confectionery in food industry, different industrial bakery products.
Clean, grade and carryout other pre-processing activities on cereal, pulses & oil seeds.	Different cereal and flours for the bakery products, quality of flour for the production of bakery items
Select material & in gradients for production of breads	Primary processing of wheat,
Operate different food machinery	Methods of cleaning, grading, milling & associated precautions.
Prepare <ul style="list-style-type: none"> o Breads: <ul style="list-style-type: none"> • Plain bread, • Fermented bread, • Protein rich bread and • Special breads 	Standards for the wheat flour
o Biscuits.: <ul style="list-style-type: none"> • Popular biscuits. • Specialized biscuits. • Other products like cookies, crackers. 	Methods of production of different wheat product
o Cakes <ul style="list-style-type: none"> • Different types of popular cakes. • Different types of specialized cakes 	Role of flour, fat, bakers, yeast, sugar and salt as bakery ingredient.
o Others <ul style="list-style-type: none"> • Corn starch, • Starch biscuits, • Namkins, • Snacks. 	I.S.I. standards for flour, fat, Baker's yeast
Test raw material and product for their quality.	Bread : Principles involved for bread production, different types of breads and their properties, ingredients used and their role in bread production, factors affecting the quality of the bread.
Prepare noodles and extruded food products using machine safely.	Biscuits: Method of biscuit production, ingredients for biscuit production and their role in the quality of the biscuits, machinery involved in biscuit production, factors affecting the quality.
Identification faults and remove.	Cakes : methods for the production of cakes, ingredients for cake production, machinery involved in cake production , factors affecting the quality

Observe hygienic practices	Starches: availability of starch in different cereals. Different uses of starch, extraction of starch, different products of grain starch
	Machinery and equipments used in bakeries e.g. flour mill, mixer, moulding machines, oven balance, packing machines, operating guidelines
	Noodles and extruded foods, preparation methods and machinery used.
	Soya product, processing methods of soya-atta, soya-snacks, namkins, soya milk, soya paneer (tofu), soya-srikhand. Processing machinery for soya products. Hygiene & safety considerations
	Raw material for papad production Method of preparation of different types of papads, machinery for papad preparation, packaging and quality of papad, mini papads. Hygiene & safety considerations
	Safety, measures.

List of equipment, tools and instruments

Sl. No.	Item/ Specification	Quantity proposed for a batch of 25 trainees
1.	Flour mill/mini grain mill	1
2.	Planetary mixer	1
3.	Moulding machines	1
4.	Sheeting machine	1
5.	Bread cutting machine	1
6.	Oven	1
7.	Packing machine	1
8.	Electronic balance	2
9.	Physical balance	2
10.	Working Table SS	2
11.	Biscuit moulds of different sizes	10
12.	Cake dies	20
13.	Grain cleaner	01
14.	Mini grain mill	01

Agro Processing & Processed Food

Practical - I - Agro Processing & Processed Food
Conducting survey of the different agro products from the market
Working with agro processing machinery Capacity evaluation of different agro processing machines
Cleaning, grading and other pre-processing activities Production of whole wheat flour Production of Suji, Maida, Dalia Packaging and labeling the product
Pre-treatment in dal milling like cleaning, grading, soaking, drying Milling pulses for production of dal, e.g. pigeon pea, green gram, Bengal gram Packaging and uses of wastes from dal mill
Production of packed whole grains like Bengal gram, black gram, green gram, groundnut
Procurement and Pre-processing of spices, cleaning, grading, destoning Working with machinery for spice grinding Production of spice powders from, coriander, black peeper, red chilly, turmeric Packaging of whole spice grains for marketing
Working of oil expellers Oil expelling from different oil seeds e.g. mustard, groundnut, rapeseed, sunflower Filtration and packaging of oil
Processing of paddy for rice
Working with groundnut decorticators for production of decorticated groundnut
Pack the given food products and seal
Development of good quality package and testing of the quality with market survey and demand
Handling and practice on the equipment Fault identification and
removal of faults
