

MAHARASHTRA STATE BOARD OF VOCATIONAL EDUCATION EXAMINATION, MUMBAI

1	Name of Syllabus	C. C. IN BAKERY & CONFECTIONERY (401202)																																																								
2	Max.Nos of Student	25 Students																																																								
3	Duration	1 year																																																								
4	Type	Part Time																																																								
5	Nos Of Days / Week	6 Days																																																								
6	Nos Of Hours /Days	4 hrs.																																																								
7	Space Required	1) Workshop = 300 sqfeet 2) Class Room = 200 sqfeet TOTAL = 500 sqfeet																																																								
8	Entry Qualification	S.S.C.																																																								
9	Objective Of Syllabus/ introduction	The students will develop knowledge and skills in the preparation and storage of Bakery and Confectionery items for commercial units and develop technical know-how in setting up small scale Bakeries.																																																								
10	Employment Opportunity	Can get employment in Bakery related establishment.																																																								
11	Teacher’s Qualification	Diploma or H.S.C. (Vocational) in related field.																																																								
12	Training System	Training System Per Week <table><tr><td>Theory</td><td>Practical</td><td>Total</td></tr><tr><td>6hrs</td><td>18hrs</td><td>24hrs</td></tr></table>							Theory	Practical	Total	6hrs	18hrs	24hrs																																												
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13	Exam. System	<table><tr><td>Sr. No.</td><td>Paper Code</td><td>Name of Subject</td><td>TH/PR</td><td>Hours</td><td>Max. Marks</td><td>Mini. Marks</td></tr><tr><td>1</td><td>40120211</td><td>Bakery Materials & Products</td><td>TH –I</td><td>3 hrs.</td><td>100</td><td>35</td></tr><tr><td>2</td><td>40120212</td><td>Equipment, Maintenance & Services</td><td>TH-II</td><td>3 hrs.</td><td>100</td><td>35</td></tr><tr><td>3</td><td>40120213</td><td>Costing</td><td>TH-III</td><td>3 hrs.</td><td>100</td><td>35</td></tr><tr><td>4</td><td>40120221</td><td>Bread Product</td><td>PR-I</td><td>3 hrs.</td><td>100</td><td>50</td></tr><tr><td>5</td><td>40120222</td><td>Non Bread Product</td><td>PR-II</td><td>3 hrs.</td><td>100</td><td>50</td></tr><tr><td>6</td><td>40120223</td><td>Equipment, Maintenance & Costing</td><td>PR-III</td><td>3 hrs.</td><td>100</td><td>50</td></tr><tr><td></td><td></td><td>Total</td><td></td><td></td><td>600</td><td>255</td></tr></table>	Sr. No.	Paper Code	Name of Subject	TH/PR	Hours	Max. Marks	Mini. Marks	1	40120211	Bakery Materials & Products	TH –I	3 hrs.	100	35	2	40120212	Equipment, Maintenance & Services	TH-II	3 hrs.	100	35	3	40120213	Costing	TH-III	3 hrs.	100	35	4	40120221	Bread Product	PR-I	3 hrs.	100	50	5	40120222	Non Bread Product	PR-II	3 hrs.	100	50	6	40120223	Equipment, Maintenance & Costing	PR-III	3 hrs.	100	50			Total			600	255
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SYLLABUS :- BAKERY & CONFECTIONERY

Theory - I Bakery Materials & Products

Cereals : Structure of wheat grain, principle wheat countries and characteristics of wheat from each.

Milling : A general descriptive survey of the various processes.

Flour : Refined – Its composition, nature of gluten and its functions in bread making and baking: simple tests for flour quality, colour, gluten and water absorption. Characteristics of different flours such as Indian, English, Canadian, Australian, house milled, blended and cake flours and their suitability for use in different types of baked products. Flour improvers.

Enriched Bakery Products : Bakery goods with soya flour, ground-nut flour, whole wheat meal etc.

Yeast : An elementary knowledge of baker's yeast, its production, its role in the fermentation of dough and conditions favorable for its action. Effects of over-and under-fermentation and over-and under –proving of dough of bread and fermented goods. Brewers yeast, other yeasts like yeast tablets, their advantages and disadvantages. Yeast foods and bread improvers.

Salt : The use and effects of salt in making bread.

Descriptive terms used in judging characteristic of products and evaluation. Scoring of goods.

Bread faults, bread diseases and remedies.

Study of cake making- flours, oils and fats, eggs, suger, dried fruits and nuts.

Chemical leavening agents- baking powder, sodium bicarbonate, ammonium bicarbonate cream of tartar.

Moistening agents, colours and flavours.

Pastry making.

Meringues.

Sugar boiling.

Fondants and chocolate work.

Marzipans.

Icings and cream fillings.

Other sundry materials, and mixtures used in confectionery such as jams, jellies, curds, creams, custards, minced meat, gelatin, agar agar, isinglass, sodium alginate, pectin, gums(Arabic, Tragacanth) dextrin etc.

Recipe balancing, cake faults and remedies.

Descriptive terms used in judging characteristics of confectionery products and evaluation.

Biscuit manufacture.

Cake making utensils, equipment and machinery.

Elementary knowledge of the construction and working of various types of ovens including brick evens.

Baking time and temperature for flour confectionery.

Setting up a small scale bakery -feasibility, layout, equipment and production.

Practical – I Bread Product

Importance of weighing and measuring; techniques of weighing and measuring.

Baking time and temperature.

Breads : Breads making, recipes and method.

Straigh dough method, normal straight dough, 70% sponge and dough, 100% sponge and dough, soaker and dough method, ferment method, Masala bread, French bread, Parsin bread, Oirrانت loaf, Brown bread, Garlic bread, whole meal bread, Milk bread, fizza base, bitta bread.

Rolls: Luncheaon rolls, Hot cross buns, bread basket, read sticks, crescent rolls, brioche, Vienna rolls etc.

Sweet Dough : Sweet dough lean, sweet dough rich, chelsea buns, Baba au Rhum, Danish pastry, doughnuts (yeast), panetone.

Unaloavened breads- Nan, tortillas, Arabic bread, oda bread etc.

Hot plate Good : Muffins crumpets.

Theory :- II EQUIPMENT, MAINTENACE & SERVICE :

Elementary study of services with particular reference to economy and safety in their use.

Heat and temperature- types of heat- aensible heat, latent heat; heat transfer- conduction, convection and rediation.

Types of fuels- solid, liguid, gaseous and electricity; comparison, cost and efficiency.

Types of fuel gases- properties, principle of Bunsen burner; striking back, safety precautions, meter reading.

Conductors and non – conductors; meaning of Ampere, volt, watt, fuse and earthing.

Short circuit- causes and remedies; different types of thermostat. Meter reading.

Break down maintenance and preventive maintenance equipment.

Fire precautions – different types of fires, extinguishers; common fire hazards.

The equipment available for the specific craft, their specifications and cost.

Objectives :

Students gain basic skills in the use, care and cleaning of appropriate equipment.

Content :

Routine use, care and cleaning of all fixed and movable equipment including gas range, electric range, deep fat fryer, potato peeler, food mixer, steam jacketed kettles, refrigerators, deep freezers, electric hot plates, chapati puffers, toasters, slicers, microwave ovens.

Practical - II Non Bread Products

The students will develop correct techniques of weighing and measuring of ingredients to achieve desired results, will develop skills in the preparation of a variety of flour confectionery and a few sugar confectionery goods and ability to assess good quality products. They will develop skills in the preparation of icings, frostings and other dressings and fillings and skills in decoration. The students will learn the correct temperature and timings for each product and their importance.

Importance of weighing and measuring; techniques of weighing and measuring.

Baking temperature and time.

Pastries : short crust pastry : Jam tarts, lemon curd tarts, cherry and pineapple tarts, fruit pies, short bread, cheese cakes.

Puff pastry : Mutton patties, patty cases, cream horns, apple, puffs, American pie, vol-au-vents, mille feuilles.

Flaky pastry : Palmiers, eccles cake, vegetable and mutton puffs, cheese straws.

Choux pastry : Chocolate eclairs, profiteroles.

Large cake : Madeira cake, sponge cake, swiss rolls, butter cake, chocolate cake, layer cake, fruit cake, lemon cake, Genoese sponge cake, velvet cake, pineapple upside down cake, Victoria sandwich cake, pound cake, walnut sultana cake, black forest cake, ribbon cake, Dundee cake, plum cake.

Small Cake : Cock cakes, vanilla/ chocolate buns, cherry buns, coconut buns, Coburg cakes, chocolate boats, madelines, cup cake, orange muffins, jam buns, doughnuts (with baking powder), praline fingers, Welsh cheese cake, sultana buns.

Decorated cakes : wedding cakes, birthday cakes, gateaux, Yule log.

Icings and cake dressings : Butter icing, royal icing, marshmallow icing, fondant icing, fudge icing, marzipans, gum paste, American frosting.

Cookies/ biscuits/ Afternoon tea fancies : Macaroons, cheese straws, cream buns, biscuit glace praline, brownies, honey biscuits, swiss tarts, butter buttons, melting moments, golden goodies, coconut macaroons, peanut macaroons, commercial biscuits.

Toffees, pulled sugar baskets, caster eggs, and ornamental works.

Theory : - III COSTING

Objectives :

Students will develop ability to identify cost elements, such as materials, labour and overheads and to price several products with a desired cost and profit percentages.

Importance of costing and control, methods of costing and costing methodology in bakeries and confectioneries.

Cost classification into materials, labour and overheads and their percentage analysis on net sales for clear understanding of their relative importance.

Materials costing use of standard recipes, materials cost control through basic operating activities like purchasing, receiving, storage, issuing, production, sales and accounting.

Materials costing as an aid to pricing by a suitable mark up policy sales mix to achieve desirable gross profit percentage.

Control of labour costs and overheads, periodical percentage analysis; calculation of overhead,

Allocation rates.

Standard costing and various analysis.

Cost behaviour into variable, fixed and semivariable, and its impact on unit cost.

Cost reporting system, daily monthly and for special managerial decisions.

PRACTICAL – III EQUIPMENT, MAINTENANCE & COSTING

- 1) safety aspects of electricity, gas and other fuels, their comparative efficiency.
- 2) The equipment available for the specific craft, their specification cost.
- 3) Students gain basic skills in the use, care and cleaning of appropriate equipment.
- 4) Routine use, care and cleaning of all fixed and movable equipment including oven, dough mixer, bread slicer, bread moulder, dough divider and refrigerator.
- 5) The equipment available for the specific craft, their specification and cost.
- 6) Importance of costing and control, methods of costing and costing methodology in bakeries and confectioneries.

7) Cost classification into materials, labour and overheads and their percentage analysis on net sales for clear understanding of their relative importance. Materials costing use of standard recipes.

8) Materials cost control through basic operating activities like purchasing, receiving, storage, issuing, production, sales and accounting.

9) Materials costing as an aid to pricing by a suitable mark up policy sales mix to achieve desirable gross profit percentage.

Control of labour costs and overheads, periodical percentage analysis; calculation of overhead,

Allocation rates.

10) Standard costing and various analysis.

11) Cost behaviour into variable, fixed and semivariable, and its impact on unit cost.

12) Cost reporting system, daily monthly and for special managerial decisions.

List of Tools and Equipment for Bakery

S.N.	Name of items	Quantity
1	Chopping Board	06
2	Knives steels	15
3	Pastry pincher	12
4	Cream whipper (electric)	02
5	Long handle flat spoon (Palta)	06
6	Halwai kadai	12
7	Jalebi Tawa	01
8	Long handless draining spoon	12
9	Long Handled Wooden spoon	12
10	Bread tins	15
11	Cake tin round	15
12	Cake tin rectangular	15
13	Borquette moulds	15
14	Muffin trays	15
15	Doughnut cutter	06
16	Fancy moulds assorted	06
17	Biscuitl cutter	06
18	Piping Bags	30
19	Nozzles assorted	06
20	Cooling racks - rectangular and round	20
21	Rolling pins	30
22	Quiche moulds	15
23	Chocolate moulds (assorted)	15
24	Easter egg moulds	15
25	Slotted s/s spoon	15 s/s bowl
26	Lemon squeezer	06
27	Mugs s/s	15

28	Grater	06
29	Wooden spoon and spatula	each -15
30	Measuring jug	15
31	s/s degchi with lid	15
32	Work table with marble top	01
33	Wire Whisk	01
34	Comb for decoration	01
35	Piping bags with set of nozzles	01
36	Strainer s/s	01
37	s/s sieve	06
38	Fire extinguisher	02

RESOURCE MATERIAL :

Daniel, A. R. (1965), Up-To-Date confectionery confectionery. A complete guide to the Crafts. Maclaren & Sons Ltd ., England.

Daniel, A. R. (1972), Bakery Question and Answers. Applied science publishers Ltd; England.

Daniel, A. R. (1978), Bakery Materials and Methods, Applied science publish Ltd; England.
Bakers Handbook on Practical Baking, (1966), Wheat Associates, New Delhi.

Whiteley, P.R. (1971), Biscuit Manufacture, Elsevier Publishing Co. Ltd; London-Amsterdam.

RESOURCE MATERIALS :

Philip, T.E. (1984) Modern cookery for Techning and the Trade, Volit orient Longam, , Bombay.

Philipb T.E. (1982) The Thangam Philip Book of Baking.

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Daniel A.R. (1953) – Bakery Materials and Methods. Maclaren and Sons Ltd., London.

Fance W.J. (1966) – The students Technology or Bread making and flour Confectionery. Routledge and Kagen Sons, London.

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Philip, Daniel, T. E. (1982), Modern Cookery for Teachnig and the Trade Vol. II, Orient Longman Ltd; Bombay.

Philip, Daniel, T.E. (1982), The Thangam Philip Book of Baking., Orient longman Ltd., Bombay.

RESOURCE MATERIAL :

Bhar B.K. (1977) Cost Accounting, Academic publishers, Calcutta.

Matz A. Curry O.J. and Frank G.W. (1970) Cost Accounting, Taraporewala Sons & Co. Pvt. Ltd., Bombay.

Prasad N.K. (1979) Principles and Practice of Cost Accounting Book, Syndicate Pvt. Ltd., Calcutta.

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