DIPLOMA IN BAKERY AND CONFECTIONERY

Eligibility: Senior Secondary (10+2) or equivalent with

English as a subject.

Duration: One Year + six months in industry

Teaching hours per week: 35 Hours

Effective teaching: 34 weeks

Industrial training: 24 weeks after the annual examinations.

TEACHING AND EXAMINATION SCHEME

No.	Subject	Subject	Hours per	Term
	code		week	Marks*
		THEORY		
1	DBC-01	Bakery	3	100
2	DBC-02	Confectionery	3	100
3	DBC-03	Commodities	2	50
4	DCS-01	Hygiene & Sanitation	2	50
5	DCS-02	Food Costing	2	50
TOT	AL		12	350
	PRACTICAL			
7	DBC-11	Bakery	12	100
8	DBC-12	Confectionary	08	100
9	DCS-11	Computer Awareness	01	-
10	DCS-12	Library	02	-
TOT	AL		23	200
GRA	GRAND TOTAL 35 550			550

^{*} Term marks will comprise 30% Mid Term Exam & 70% End Term Exam Marks.

RULES AT A GLANCE

NO.	TOPIC	REQUIREMENT
1.	Attendance required to become eligible for exam	75% in aggregate
2.	Minimum pass marks for each theory subject	40%
3.	Minimum pass marks for each practical subject 50%	
4.	Maximum duration to pass/clear all subjects/ papers	03 academic years

BAKERY THEORY (DBC - 01)

TIME ALLOTTED: 3 HOURS PER WEEK

ACTIVITY	MAXIMUM MARKS
Marks for attendance	5
Mid-term exam marks	25
Total (Incourse Assessment Marks)	30
End term exam marks	70
Total	100

MAXIMUM MARKS: 100

- 1. Draw the organization chart and kitchen hierarchy of bakery department
- 2. Explain the different ingredients used in bakery
- 3. Explain the different working temperatures for bakery products
- 4. Define the bread faults and remedies of bakery products
- 5. Draw and explain the layout of a bakery
- 6. Write recipes of different breads, pastries and gateaux

UNIT	CONTENT	HOURS ALLOTTED	WEIGHTAGE FOR EXAM
1	 Introduction Scope of Bakery & Confectionery, Bakery terms. Organisation chart of Bakery. 	10	15%
2	 Wheat and Flour Different types of flours available, Constituents of flours, pH Value of flour, Water absorption power of flour, Gluten, diastatic capacity of flour, Grade of flour. 	15	15%
3	Raw material required for bread making: - Role of flour, water, yeast, salt - Sugar, milk and fats	10	10%
4	An elementary knowledge of Baker's yeast, the part it plays in the fermentation of dough and conditions influencing it's working.	05	05%



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	Effect of over and under		
	fermentation and under proofing of		
	dough and other fermented goods.		
5	Bread improvers-improving physical		
	quality	05	05%
6	MID TERM EXAM		
0	Oven & Baking:		
	 Knowledge and working of various types of oven. 	05	05%
	 Baking temperatures for bread, 	03	0370
	confectionery goods.		
	componently goods.		
7	Methods of bread making :		
	 Straight dough method 		
	 Delayed salt method 	10	10%
	 No time dough method 		
	Sponge and dough method		
8	Characteristics of good bread		
	External characteristics		
	 Volume, symmetry of shape 	10	10%
	 Internal characteristics - colour, 		
	texture, aroma, clarity and elasticity		
9	Bread faults and their remedies	05	10%
10	Bakery layout – The required approvals		
	for setting up of a Bakery – Government		
	procedure and Bye-laws.		
	Selection of site Selection of agricument	10	10%
	Selection of equipment. Layout design	10	10 /0
	Layout design Electricity		
	Electricity.		
11	Quality control		
	 of raw material 		
	of finished products	05	05%
Total		90	100%

CONFECTIONERY (DBC-02)

TIME ALLOTTED: 3 HOURS PER WEEK MAXIMUM MARKS: 100

ACTIVITY	MAXIMUM MARKS
Marks for attendance	5
Mid-term exam marks	25
Total (Incourse Assessment Marks)	30
End term exam marks	70
Total	100

- 1. Explain the different ingredients used in confectionery
- 2. Differentiate different cake mixing methods
- 3. Define and explain different pastries and derivatives
- 4. Explain the operation and different types of oven
- 5. Define the internal and external characteristics of cakes
- 6. Describe the different cake faults and remedies
- 7. Describe the different cake faults and remedies
- 8. List down the steps in preparing cookies and biscuits
- 9. Explain the procedure in preparing Ice Creams

UNIT	CONTENT	HOURS ALLOTTED	WEIGHTAGE FOR EXAM
1	Ingredient used in Cake Making Types & Varieties Flour Sugar Shortening – Fats and oil Egg Moistening agent Leavening Agents	10	15%
2	 Cake Making Methods Sugar butter process, Flour butter process, Genoise method Blending and rubbing method. 	10	10%
3	Basic Pastries Pastry making, principles & derivatives	10	10%
4	Balancing cake formula	05	05%
5	Characteristic of Cakes:		

	External characteristics Internal Characteristics	10	10%
	MID TERM EXAM		
6	Cake Faults and remedies	10	10%
7	Types of icing	10	10%
8	Preparation of cookies and biscuits. Factors affecting the quality of biscuits / cookies.	10	10%
9	Various types ice creams and bombs.	08	10%
10	Storage of confectionery product	07	10%
Total		90	100%

COMMODITIES (DBC-03)

TIME ALLOTTED: 02 HOURS PER WEEK MAXIMUM MARKS: 50

ACTIVITY	MAXIMUM MARKS
Marks for attendance	2 ½
Mid-term exam marks	12 ½
Total (Incourse Assessment Marks)	15
End term exam marks	35
Total	50

- 1. Explain the composition of wheat and wheat products
- 2. Describe the different types of sugar and its substitutes.
- 3. List the different types and quality of eggs and dairy products
- 4. Define yeast and explain its role in bakery and confectionery
- 5. Explain the types of shortenings and its role in bakery and confectionery.
- 6. Elaborate the role of gelling agents, stabilizers and preservatives in bakery and confectionery.
- 7. Define the food laws and follow H.A.C.C.P Principles

UNIT	CONTENT	HOURS ALLOTTED	WEIGHTAGE FOR EXAM
1	 wheat composition, production, grade and quality wheat products, other flours, meals and starches 	10	15 %
2	 sugar sugar substitutes syrups, jams and marmalades Cocoa production Cocoa by-products 	05	10%
3	 Eggs and dairy products types importance in bakery and confectionery grading, quality and selection 	10	15%
4	Leavening agentsYeast and its varieties	05	10%

	Role in raising bakery productsChemical leavening agents		
	MID TERM EXAM		
5	Shortenings		
	Role of shorteningTypesUsage in bakery and confectionery	06	10%
6	 Gelling agents and stabilizers Their role in bakery and confectionery Food additives and preservatives Edible garnishes Canned food 	12	20%
7	 Introduction to food laws Storage and preservation of bakery and confectionery products Organic and genetically modified foods 	12	20%
	Total	60	100%

HYGIENE AND SANITATION (DCS-01)

TIME ALLOTTED: 02 HOURS PER WEEK MAXIMUM MARKS: 50

ACTIVITY	MAXIMUM MARKS
Marks for attendance	2 ½
Mid-term exam marks	12 ½
Total (Incourse Assessment Marks)	15
End term exam marks	35
Total	50

LEARNING OBJECTIVES: After completion of the subject a student will be able to:

- 1. Understand Food Microbiology, Food Contamination and Spoilage;
- 2. Follow sanitary procedure during food handling;
- 3. Understand the importance of personal hygiene
- 4. Analyze critical control points; and
- 5. Practice laws governing the food safety and standards

No	CONTENT	TIME	WEIGHTAGE
		ALLOTTED	FOR EXAM
1	FOOD MICROBIOLOGY		
	Introduction		
	Microorganism groups important in food		
	microbiology - Viruses		
	- Viluses - Bacteria	10	15%
	- Fungi (Yeast & Molds)		
	- Algae		
	- Parasites		
	 Factors affecting the growth of microbes 		
	Beneficial role of Microorganisms		
2	FOOD CONTAMINATION AND SPOILAGE		
	 Classification Of Food 		
	 Contamination And Cross 	05	10%
	Contamination		
	 Spoilages Of Various Food With The 		
	Storing Method		
3	SANITARY PROCEDURE FOLLOWED DURING		
	FOOD HANDLING		
	Receiving,	10	20%
	Storage,	_	- 1-
	 Preparation, 		
	Cooking,		



	Holding, and		
	Service Of The Food		
	MID TERM EXAM		
4	SAFE FOOD HANDLER		
	 Personal Hygiene discussing all the 		
	standard.	10	15%
	 Hand Washing Procedure 	10	1370
	 First Aid definition, types of cuts, 		
	wounds, lacerations with reasons and		
	precautions.		
5	HAZARD ANALYSIS CRITICAL CONTROL		
	POINT	10	15%
	Introduction to HACCP	10	13%
	History		
	 Principles of HACCP 		
6	FOOD SAFETY STANDARDS AUTHORITY		
	OF INDIA (FSSAI)		
	Introduction to FSSAI	05	15%
	Role of FSSAI		
	FSSAI Compliance		
7	GARBAGE DISPOSAL		
	Different Methods	10	10%
	 Advantages & Disadvantages 		
	 Municipal Laws and Swachh Abhiyan 		
Total		60	100%

FOOD COSTING (DCS-02)

TIME ALLOTTED: 02 HOURS PER WEEK MAXIMUM MARKS: 50

ACTIVITY	MAXIMUM MARKS
Marks for attendance	2 ½
Mid-term exam marks	12 ½
Total (Incourse Assessment Marks)	15
End term exam marks	35
Total	50

- 1. Know different pricing methods and explain the different types of Menu.
- 2. Explain the importance of food costing and costing techniques.
- 3. Develop standard recipes and adjust the quantities using adjustment factor.
- 4. Define and explain Material Costing.
- 5. Explain in controlling food cost, labour cost, overhead cost etc.
- 6. Define yield and its types.
- 7. Calculate standard food cost and explain the techniques in portion cost and dinner cost.

UNIT	CONTENT	HOURS ALLOTTED	WEIGHTAGE FOR EXAM
1	PricingMenu pricing stylesTypes of menuDifferent methods in pricing	08	15 %
2	 Costing Importance of food costing Methods of costing Costing techniques 	07	10%
3	Use of standardized recipes Developing standardized recipes Adjustment factor	07	10%
4	 Material costing Through purchasing receiving issuing production sales and accounting 	08	15%

	MID TERM EXAM				
5	Control of				
	 food cost labour cost overhead cost miscellaneous cost 	10	15%		
6	Yieldbutchers yieldcooking yieldportion control	10	15%		
7	determining standard food cost calculating portion cost calculating dinner cost	10	20%		
Total	1	60	100%		

BAKERY PRACTICAL (DBC - 11)

TIME ALLOTTED: 12 HOURS PER WEEK MAXIMUM MARKS: 100

ACTIVITY	MAXIMUM MARKS
Marks for attendance	5
Mid-term exam marks	25
Total (Incourse Assessment Marks)	30
End term exam marks	70
Total	100

- 1. Identify and differentiate the small and large equipment in bakery
- 2. Identify and check for quality of different types of ingredients used in bakery
- 3. Prepare and Present yeast fermented products
- 4. Prepare and Present flavoured breads
- 5. Prepare and Present Breakfast breads
- 6. Prepare and Present laminated breads
- 7. Prepare toppings and stuffing for pizza and burgers

UNIT	CONTENT	HOURS ALLOTTED
1	 Introduction to ingredients / Equipment Identification and uses of equipment – large, small and utilities Ingredients – Types of flour, Sugar, Nuts and Dry fruits, Shortenings, leavening etc. 	36
2	 Quality Checking & Basic Mixing Methods Flour: W.A.P Test, Gluten Content Yeast: Flying fermentation 	36
3	Mixing Methods Basic steps involved in mixing ingredients – Kneading, stirring, whipping, creaming etc.	36
4	 Simple yeast fermented products Bread Sticks, Bread Rolls and Soft Rolls 	36
5	Basic Buns, Fruit Buns, Hot Cross Buns, Tomato Rolls and Garlic Rolls	36

6	Rich Yeast Fermented Breads Brioche, Fermented Doughnuts, Baba au Rhum, Savarin	36
7	Bread Loafs: Milk Bread, Bread Loaf, Currant Loaf, Whole Meal Bread, Masala Bread, Raisin Bread	36
8	International Bread French Bread, Chelsea Buns	36
9	Laminated Yeast Breads Danish pastry croissants	36
10	Burger Buns, Pizza Base	36
Total		360

MARKING SCHEME FOR PRACTICAL EXAMINATION BAKERY PRACTICAL (DBC - 11)

Maximum Marks 100 Pass Marks 50

Part 'A' 25 Marks

			MARK
1.	Uniform & Grooming	:	05
2.	Journal	:	10
3.	Viva	:	10
	Total	:	25

Part 'B' 75 Marks

- 1. Each student to prepare three different breads from the syllabus
- 2. Each item shall carry 20 marks
- 3. Parameters of assessment of each item.

a)	Appearance & colour	:	03
b)	Volume & symmetry of shape	:	03
c)	Texture	:	03
d)	Aroma	:	03
e)	Elasticity	:	03
f)	Correct recipe& equipment	:	05
	Total	:	20

4. Adherence to Hygiene & Food Safety : 15

NOTE:

- 1. Journal is not allowed during indenting or practical. It must be handed over to the examiner before commencement of examination.
- 2. Assessment will be done by both internal and external Examiner.
- 3. Extra ingredients may be made available in case of failure but of limited types and quantity. Only one extra attempt may be permitted.
- 4. Uniform and grooming must be checked by the examiners before commencement of examination.
- 5. Students are not allowed to take help from books, notes, journal or any other person.
- 6. The Examiners will ensure that examinee adheres to Good Hygiene and Food safety practices during the examination.



CONFECTIONERY PRACTICAL (DBC – 12)

TIME ALLOTTED: 8 HOURS PER WEEK MAXIMUM MARKS: 100

ACTIVITY	MAXIMUM MARKS
Marks for attendance	5
Mid-term exam marks	25
Total (Incourse Assessment Marks)	30
End term exam marks	70
Total	100

- 1. Identify and check for quality of different types of ingredients used in confectionery
- 2. Identify and differentiate the small and large equipment used in confectionery
- 3. Prepare and Present basic sponges
- 4. Prepare and Present different cookies and biscuits
- 5. Prepare and Present basic pastries and its derivatives
- 6. Prepare basic icings and toppings
- 7. Prepare and Present international cakes and puddings
- 8. Prepare and Store Ice Creams, Toffees and Indian Sweets

UNIT	CONTENT	HOURS ALLOTTED
1	Basic Cake Making Plain Sponge Madeira Cake, Rock Cake, Fruit Cake Fatless Sponge Swiss Rolls Genoise Sponge	24
2	Plain biscuits; piping biscuits; cherry knobs; langue —de — chats; (cats tongue) salted biscuits; nut biscuits; coconut biscuits; melting moment; macaroons; tricolour; chocolate biscuits; marble biscuits; nan-khatai; short bread biscuits. Ginger biscuits; cheese biscuits; cream fingers.	24
3	Basic Pastry & derivatives: (i) Short Crust Pastry Jam tart, Lemon curd tart Apple tie, Banana Flan, Fruit Tartlets.	24



	 (ii) Choux Pastry Chocolate Éclairs, Profit role Cream puff (iii) Puff Pastry & flaky pastry Khara Biscuits, veg patties, chicken patties Mutton patties, Cheese Straws, patty case Bouchee, vol-au-vents, Mille Feuillet, Jalousie, Creams Horns Apple Strudel 	
4	Icings and Toppings	
	Fondant; American frosting; butter cream icing; royal icing; gum paste; marzipan; marshmellow; lemon meringue; fudge; almond paste; glace icing	24
5	Pastry & Special Cakes	
	Queen cakes, Easter Egg Chocolate dippings Cheese cake, Baba-cum Rhum Savarin Chantilly, meringue chantilly. Madeline cake Pineapple pastry, chocolate pastry	24
6	Icing Cakes	
	Birthday cake Wedding cakes	24
7	Gateaux	
	Black forest Gateaux, gateaux religious	24
8	Puddings and Desserts	
	Hot dessert: Caramel Custard Bread and Butter pudding Cold Desserts: Bavarois; ginger pudding; cold lemon soufflé; chocolate mousse; charlottes royale; charlotte russe; charlotte arlequine; bavarois urbane; soufflé praline; fruit triffle.	24
9	Ice Cream	
	Vanilla, strawberry, chocolate, pineapple, mango, Sorbets, Bombe, Sundees, Parfaits	24
10	Toffees:	
	Milk Toffee – Chocolates	
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	Stick Jaws - liquor chocolates Indian Confectionery Chenna – Rasgulla, Chamcham, Pakiza, Chenna Toast, Rasmalai Khoya – Gulab Jamun, Barfi Sugar – Mysore Pak, Ghewar Flour / Besan – Patisa, Shakarpare, Halwa, Laddoo, Peda. Milk – Kheer, Rabri Nuts – Barfi, Chekki	24
Total		240

MARKING SCHEME FOR PRACTICAL EXAMINATION CONFECTIONERY PRACTICAL (DBC – 12)

Maximum Marks Part 'A' 25 Marks	100	Pass Marks		50
Ture 74 20 Marito			MARKS	
1. Uniform & Groo	oming	:	05	
2. Journal		:	10	
3. Viva		:	10	
Total		:	25	

Part 'B' 75 Marks

- 1. Each student to prepare three different items as under
 - i) One small cake with icing
 - ii) One pastry item
 - iii) One hot/cold dessert
- 2. Each item shall carry 20 marks
- 3. Parameters of assessment of each item

a) Appearance & Colour	:	03
b) Texture	:	03
c) Aroma & Flavour	:	03
d) Consistency	:	03
e) Taste	:	03
f) Correct recipe & Equipment	:	05
TOTAL	:	20

4. Adherence to Hygiene & Food Safety : 15

NOTE:

- 1. Journal is not allowed during indenting or practical. It must be handed over to the examiner before commencement of examination.
- 2. Assessment will be done by both internal and external Examiner.
- 3. Extra ingredients may be made available in case of failure but of limited types and quantity. Only one extra attempt may be permitted.
- 4. Uniform and grooming must be checked by the examiners before commencement of examination.
- 5. Students are not allowed to take help from books, notes, journal or any other person.
- 6. The Examiners will ensure that examinee adheres to Good Hygiene and Food safety practices during the examination.



COMPUTER AWARENESS (DCS-11)

TIME ALLOTTED: 01 HOURS PER WEEK MAXIMUM MARKS: NII

Learning Objectives:- After the completion of Computer Awareness subject, the Students will be able to:

- 1. Understand computer and its hardware & software.
- 2. To produce word document with proper formatting
- 3. To work on an excel sheet with basic functions.
- 4. Brows on net and communicate through e-mail
- 5. Prepare small power point presentations.

UNIT	CONTENT	HOURS ALLOTTED
1	KNOWING COMPUTER	
	What is computer?	
	Basic Applications of Computer	
	Components of Computer System	
	Central Processing Unit	
	Keyboard, mouse and VDU	
	> Other Input devices	
	> Other Output devices	
	Computer MemoryConcept of Hardware and Software	
	Concept of Hardware and Software Hardware	
	> Software	4
	❖ Application Software	
	 ❖ Application Software ❖ Systems software 	
	Concept of computing, data and information	
	Applications of IECT	
	e-governance	
	> Entertainment	
	Bringing computer to life	
	Connecting keyboard, mouse, monitor	
	and printer to CPU	
	Checking power supply	
2	OPERATING COMPUTER USING GUI BASED	
	OPERATING SYSTEM	
	Basics of Operating System	
	Operating system	
	Basics of popular operating system (LINUX, WINDOWS)	4
	The User Interface	
	Task Bar	
	Icons	
	Menu	

	Running an Application	
	 Operating System Simple Setting 	
	Changing System Date And Time	
	Changing Display Properties	
	To Add Or Remove A Windows	
	Component	
	Changing Mouse Properties	
	Adding and removing Printers	
	File and Directory Management	
	Creating and renaming of files and	
	directories	
3	UNDERSTANDING WORD PROCESSING	
	Word Processing Basics	
	Opening Word Processing	
	➤ Menu Bar	
	Using The Help	
	Using The Icons Below Menu Bar	
	Opening and closing Documents	
	 Opening Documents 	
	Save and Save as	
	Page Setup	
	> Print Preview	
	Printing of Documents	
	Text Creation and manipulation	
	 Document Creation 	
	> Editing Text	
	> Text Selection	5
	Cut, Copy and Paste	
	> Spell check	
	> Thesaurus	
	Formatting the Text	
	Font and Size selection	
	Alignment of Text	
	Paragraph IndentingBullets and Numbering	
	Changing case	
	Table ManipulationDraw Table	
	Changing cell width and height Alignment of Toyt in cell	
	Alignment of Text in cellDelete / Insertion of row and column	
4	➢ Border and shading USING SPREAD SHEET	
4		
	Elements of Electronic Spread Sheet Opening of Spread Sheet	
	Opening of Spread Sheet Addressing of Calls	_
	> Addressing of Cells	5
	Printing of Spread Sheet Soving Workhooks	
	> Saving Workbooks	
	Manipulation of Cells	

	 Entering Text, Numbers and Dates Creating Text, Number and Date Series Editing Worksheet Data Inserting and Deleting Rows, Column Changing Cell Height and Width Formulas and Function Using Formulas Function 	
5	INTRODUCTION TO INTERNET, WWW AND	
	WEB BROWSERS	
	 Basic of Computer Networks Local Area Network (LAN) Wide Area Network (WAN) Internet Concept of Internet Applications of Internet Connecting to the Internet Troubleshooting World Wide Web (WWW) Web Browsing Softwares Popular Web Browsing Softwares Search Engines Popular Search Engines / Search for content Accessing Web Browser Using Favorites Folder Downloading Web Pages Printing Web Pages Understanding URL Surfing the web 	4
	 Using e-governance website 	
6	 COMMUNICATIONS AND COLLABORATION Basics of E-mail What is an Electronic Mail Using E-mails Opening Email account Mailbox: Inbox and Outbox Creating and Sending a new E-mail Replying to an E-mail message Forwarding an E-mail message Sorting and Searching emails Document collaboration Instant Messaging and Collaboration Using Instant messaging Instant messaging providers Netiquettes 	3
7	MAKING SMALL PRESENTATIONS	
	Basics	5
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	Using PowerPoint	
	Opening A PowerPoint Presentation	
	Saving A Presentation	
	 Creation of Presentation 	
	Creating a Presentation Using a	
	Template	
	Creating a Blank Presentation	
	Entering and Editing Text	
	Inserting And Deleting Slides in a	
	Presentation	
	Preparation of Slides	
	Inserting Word Table or An Excel	
	Worksheet	
	Adding Clip Art Pictures	
	➤ Inserting Other Objects	
	 Resizing and Scaling an Object 	
	Presentation of Slides	
	Viewing A Presentation Changing a Set Up for Presentation	
	Choosing a Set Up for Presentation	
	Printing Slides And Handouts	
	Slide Show	
	Running a Slide Show	
	Transition and Slide Timings	
	Automating a Slide Show	
TOTAL		30

