



Bakery-I

Students Handbook

CLASS-XI



CENTRAL BOARD OF SECONDARY EDUCATION

2, Community Centre, Preet Vihar, Delhi-110092



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भारत का संविधान

उद्देशिका

हम, भारत के लोग, भारत को एक सम्पूर्ण [प्रभुत्व-संपन्न समाजवादी पंथनिरपेक्ष लोकतंत्रात्मक गणराज्य] बनाने के लिए, तथा उसके समस्त नागरिकों को:

> सामाजिक, आर्थिक और राजनैतिक न्याय, विचार, अभिव्यक्ति, विश्वास, धर्म

> > और उपासना की स्वतंत्रता, प्रतिष्ठा और अवसर की समता

प्राप्त कराने के लिए तथा उन सब में व्यक्ति की गरिमा

> और ²[राष्ट्र की एकता और अखंडता] सुनिश्चित करने वाली बंधुता बढ़ाने के लिए

दृढ़संकल्प होकर अपनी इस संविधान सभा में आज तारीख 26 नवम्बर, 1949 ई॰ को एतद्द्वारा इस संविधान को अंगीकृत, अधिनियमित और आत्मार्पित करते हैं।

- 1. संविधान (बयालीसवां संशोधन) अधिनियम, 1976 की धारा 2 द्वारा (3.1.1977) से "प्रभुत्व-संपन्न लोकतंत्रात्मक गणराज्य" के स्थान पर प्रतिस्थापित।
- 2. संविधान (बयालीसवां संशोधन) अधिनियम, 1976 की धारा 2 द्वारा (3.1.1977) से "राष्ट्र की एकता" के स्थान पर प्रतिस्थापित।

भाग 4 क

मूल कर्त्तव्य

51 क. मूल कर्त्तव्य - भारत के प्रत्येक नागरिक का यह कर्त्तव्य होगा कि वह -

- (क) संविधान का पालन करे और उसके आदर्शों, संस्थाओं, राष्ट्रध्वज और राष्ट्रगान का आदर करे;
- (ख) स्वतंत्रता के लिए हमारे राष्ट्रीय आंदोलन को प्रेरित करने वाले उच्च आदर्शों को हृदय में संजोए रखे और उनका पालन करे;
- (ग) भारत की प्रभुता, एकता और अखंडता की रक्षा करे और उसे अक्षुण्ण रखे;
- (घ) देश की रक्षा करे और आह्वान किए जाने पर राष्ट्र की सेवा करे;
- (ङ) भारत के सभी लोगों में समरसता और समान भ्रातृत्व की भावना का निर्माण करे जो धर्म, भाषा और प्रदेश या वर्ग पर आधारित सभी भेदभाव से परे हों, ऐसी प्रथाओं का त्याग करे जो स्त्रियों के सम्मान के विरुद्ध हैं;
- (च) हमारी सामासिक संस्कृति की गौरवशाली परंपरा का महत्त्व समझे और उसका परिरक्षण करे;
- (छ) प्राकृतिक पर्यावरण की जिसके अंतर्गत वन, झील, नदी, और वन्य जीव हैं, रक्षा करे और उसका संवर्धन करे तथा प्राणिमात्र के प्रति दयाभाव रखे;
- (ज) वैज्ञानिक दृष्टिकोण, मानववाद और ज्ञानार्जन तथा सुधार की भावना का विकास करे;
- (झ) सार्वजनिक संपत्ति को सुरक्षित रखे और हिंसा से दूर रहे;
- (ञ) व्यक्तिगत और सामूहिक गतिविधियों के सभी क्षेत्रों में उत्कर्ष की ओर बढ़ने का सतत प्रयास करे जिससे राष्ट्र निरंतर बढ़ते हुए प्रयत्न और उपलब्धि की नई उंचाइयों को छू ले;
- '(ट) यदि माता-पिता या संरक्षक है, छह वर्ष से चौदह वर्ष तक की आयु वाले अपने, यथास्थिति, बालक या प्रतिपाल्य के लिये शिक्षा के अवसर प्रदान करे।
- 1. संविधान (छयासीवां संशोधन) अधिनियम, 2002 की धारा 4 द्वारा (12,12,2002) सें अंत: स्थापित।



Preface

In an increasingly globalized world and the changing paradigm of urbanized living the demand for Hospitality and Tourism has increased manifold the world over. In this ever expanding sector, it has become essential to provide Competency based Vocational Education. It is in this context that CBSE has launched a course in Hospitality & Tourism under vocational stream. Taking cue from this need, a new course on Bakery and Confectionery is being launched that will help students to either join the industry after class XII or they can pursue higher education in this field.

The Students Handbook on Bakery-I attempts, to describe the aims & objectives of Bakery, Hygiene, Bread-making, Equipments used in Bakery.

The language used in this book is simple with lot of pictorial illustration. This book is a complete handbook for anybody to even start a small bakery. This book will help students by giving them information in accessible style.

Practicing professionals from the fields of Hospitality and Tourism comprised the team of authors for this book. The Board thankfully acknowledges their contribution in completing the book in record time. I hope this book will serve a useful resource in this subject.

The Board is grateful to the members of the Committee of Course for their advice, guidance and total commitment towards development of this course. We are indeed indebted to these academic advisors who have lent us the benefit of their rich and insightful experience. I would like to appreciate Vocational Education Cell, CBSE for coordinating and successfully completing the work.

Comments and Suggestions are welcome for further improvement of the Book.

Vineet Joshi, IAS Chairman, CBSE



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Bakery

| TOPIC | LEARNING OUTCOMES | | |
|--|--|--|--|
| CHAPTER 1 - INTRODUCTION TO BAKERY AND CONFECTIONERY | | | |
| 1.1 Introduction to Bakery and Confectionery | General Overview of Bakery and Confectionery | | |
| 1.2 Scope of Bakery | To understand the Scope of Bakery | | |
| 1.3 Organizational Structure | To study the Organizational Structure of the Bakery Department | | |
| 1.4 Units of Measurements | To study the units of measurements used in Bakery | | |
| 1.5 Bakery & Confectionery Terms | To learn the various Bakery & Confectionery Terms | | |
| 1.6 Basic Equipments | To get familiarized with the equipments used in Bakery | | |
| 1.7 Baking Temperatures for Bakery Products | To study the different Temperatures for Baking Products | | |
| CHAPTER 2 - HYGIENE | | | |
| 2.1 Introduction to Hygiene | General Overview of Hygiene | | |
| 2.2 Concept of Hygiene & its Importance in Bakery | To understand the Concept & Importance of Hygiene | | |
| 2.3 Personal Hygiene | To understand the Importance of Personal Hygiene | | |
| 2.4 Work Area Hygiene | To study the aspects of Work Area Hygiene | | |
| 2.5 Basic First Aid | To learn the Basic First-Aid | | |



| CHAPTER 3 - STRUCTURE OF WHEAT GRAIN | | | |
|--|---|--|--|
| 3.1 Introduction to Structure of Wheat Grain | General overview of Structure of Wheat Grain | | |
| 3.2 Physical Structure | To learn the Physical Structure of Wheat Grain | | |
| 3.3 Longitudinal Section | To study the Longitudinal Section of Wheat Grain | | |
| CHAPTER 4 - MILLING OF WHEAT | | | |
| 4.1 Introduction to Milling of wheat | General overview of Milling of Wheat | | |
| 4.2 Wheat Milling Process | To get familiarized with the Wheat Milling Process | | |
| 4.3 Roller Flour Mills, Stone Mills | To know the Roller Flour Mills and Stone Mills | | |
| СНА | PTER 5 - FLOUR | | |
| 5.1 Introduction to Wheat Flour | General Overview of Wheat Flour | | |
| 5.2 Composition of Wheat Flour | To learn different components of Wheat Flour along with their percentages. | | |
| 5.3 Types of Flour | To identify different Types of Flour | | |
| 5.4 Grades of Wheat Flour | To identify different Grades of Flour | | |
| 5.5 Water Absorption Power | To understand Water Absorption Power and WAP percentage of different flours | | |
| 5.6 Gluten | To know the role of Gluten in Bread Making | | |
| CHAPTER 6 - ROLE OF RAW MATERIALS USED FOR BREAD MAKING | | | |
| 6.1 Introduction to Role of Raw material used for Bread Making | General overview of Role of Raw material used for Bread Making | | |
| 6.2 Essential: Flour, Salt, Yeast, Water, Sugar | To study the role of essential ingredients in Bread Making | | |



| 6.3 Optional: Fats and Oils, Eggs, Bread Improvers, Milk | To study the role of optional ingredients in Bread Making |
|--|---|
| CHAPTER 7 - ME | THOD OF BREAD MAKING |
| 7.1 Introduction to methods of Bread Making | General overview of method of Bread Making |
| 7.2 Straight Dough Method i. Salt Delay Method ii. No Time Dough Method | To understand the Straight Dough Method in bread making and its variations i.e. salt delayed method and no time Dough Method. |
| 7.3 Sponge and Dough Method | To understand the Sponge and Dough Method used in Bread Making |
| CHAPTER 8 - CHARAG | CTERISTICS OF A GOOD BREAD |
| 8.1 Introduction of characteristics of a Good Bread | General overview of Characteristics of Good Bread |
| 8.2 External: Volume, Symmetry of Shape, Bloom, Crust Colour, Evenness of Bake, Oven Break | To identify the external Characteristics of a Good Bread |
| 8.3 Internal: Colour of Bread, Structure, Sheen and Texture, Flavour and Aroma, Crum Clarity, Moistness, Cleanliness | To identify the internal Characteristics of a Good Bread |



Module Objectives Bakery & Confectionery

| S. No. | Unit/Chapter Name | Theory | Key Learning Objectives |
|--------|---|--------|--|
| 1. | Introduction to Bakery & Confectionery | 18 hrs | General Overview Scope of Bakery Learning the Organizational Structure Units of Measurement Bakery & Confectionery Terms Basic Equipment for Bakery Baking Temperature for Bakery Products |
| 2. | Hygiene | 14 hrs | General Overview Concept of Hygiene and its importance in Bakery Personal Hygiene Work Area Hygiene Basic First Aid |
| 3. | Structure of Wheat Grain | 12 hrs | General Overview Physical Structure Longitudinal Section |
| 4. | Milling of Wheat | 14 hrs | General Overview |



| | | | → Wheat Milling Process |
|----|-------------------------|--------|---|
| | | | Roller four Mills, Stone Mills |
| 5. | Flour | 18 hrs | → General Overview |
| | | | → Composition of Wheat Flour |
| | | | → Types of Flour |
| | | | → Grades of Wheat Flour |
| | | | → Water Absorption Power |
| | | | ➡ Gluten |
| 6. | Role of Raw Materials | 20 hrs | ◆ General Overview |
| | used for Bread Making | | Sessential: Flour, Salt, Yeast, Water, Sugar |
| | | | → Optional: Fats & Oils, Eggs, Bread Improvers, Milk |
| 7. | Methods of Bread Making | 10 hrs | → General Overview |
| | | | Straight Dough Method |
| | | | Sponge and Dough Method |
| 8. | Characteristics of a | 14 hrs | → General Overview |
| | Good Bread | | External: Volume, Symmetry of shape,Crust Colour, Evenness of Bake, Oven |
| 7 | | | Break |
| | | | •• Internal: Colour of Bread, Structure, |
| | | | Sheen and Texture, Flavour and Aroma, Crum Clarity, Moistness, Cleanliness |