

NEP- 2020

SY B.Sc.

Hospitality Studies



Savitribai Phule Pune University

(Formerly University of Pune)

Four Year Degree Program - B.Sc. Hospitality Studies

(Under Faculty of Science & Technology)

SY B.Sc. Hospitality Studies

National Education Policy (NEP) 2020

Restructured Syllabus

To be implemented from Academic Year 2025-26

SYBScHS (Sem- III)

Vertical Program Cr (T/P)	Course Code	Course Title	Instruction Hrs. / Week	Scheme of Examination Evaluation			Credits
				Int	Ext	Total	
Major Core 8 (T) + 4 (P)	MJ/MJP	Subject – 1 / Subject – 2 / Subject - 3 (T) Part 1	4	30	70	100	4
		Subject – 1 / Subject – 2 / Subject - 3 (P) Part 1	4	15	35	50	2
		Subject – 1 / Subject – 2 / Subject - 3 (T) Part 2	4	30	70	100	4
		Subject – 1 / Subject – 2 / Subject - 3 (P) Part 2	4	15	35	50	2
	HS 201	Subject 1 Food Production – III					
	HS 202	Subject 2 Food & Beverage Service – III					
	HS 203	Subject 3 Rooms Division – III					
Minor 2 (T) + 2 (P)	MN/MNP	Subject – 1 / Subject – 2 / Subject - 3 (T)	2	15	35	50	2
		Subject – 1 / Subject – 2 / Subject - 3 (P)	4	15	35	50	2
	HS 241	Subject 1 Food Production – III					
	HS 242	Subject 2 Food & Beverage Service – III					
	HS 243	Subject 3 Rooms Division – III					
Major Elective	-----	-----	-----	-----	-----	-----	-----
GE/OE 2 (T)	HS 204 A/B	University Basket Applicable to us	2	15	35	50	2
		A) Food Hygiene & Safety					
		B) MICE Management					
IKS (Major Specific) 2 (T)	HS 205 IKS	Heritage Hotels of India	2	15	35	50	2
AEC 2 (T)	AEC-231-HIN / AEC-232-MAR	MIL - I (Hindi) /	2	15	35	50	2
		MIL - II (Marathi)					
Total						550	22

SYBScHS (Sem- IV)

Vertical Course Cr (T/P)	Course Code	Course Title	Instruction Hrs. / Week	Scheme of Examination Evaluation			Credits
				Int	Ext	Total	
Major Core 8 (T) + 4 (P)	MJ/MJP	Subject – 1 / Subject – 2 / Subject - 3 (T) Part 1	4	30	70	100	4
		Subject – 1 / Subject – 2 / Subj ect - 3 (P) Part 1	4	15	35	50	2
		Subject – 1 / Subject – 2 / Subject - 3 (T) Part 2	4	30	70	100	4
		Subject – 1 / Subject – 2 / Subject - 3 (P) Part 2	4	15	35	50	2
	HS 251	Subject 1 Food Production – IV					
	HS 252	Subject 2 Food & Beverage Service – IV					
	HS 253	Subject 3 Rooms Division – IV					
Minor 2 (T)	MN	Subject – 1 / Subject – 2 / Subject - 3 (T)	2	15	35	50	2
	HS 291	Subject 1 Food Production – IV					
	HS 292	Subject 2 Food & Beverage Service – IV					
	HS 293	Subject 3 Rooms Division – IV					
Major Elective 2 (T) + 2 (P)	MJE/MJEP	Major Elective 1 (T)	2	15	35	50	2
		Major Elective 1 (P)	4	15	35	50	2
	HS 311	Food Science, Nutrition & Menu Management					
	HS 312	Functional & Therapeutic Beverages					
	HS 313	Facility Management & Sustainability Practices					
GE/OE 2 (T)	HS 254 A/B	University Basket Applicable to us	2	15	35	50	2
		A)Human Resource Management (HRM) in Hospitality Industry					
		B) Customer Relationship Management (CRM) in Hospitality Industry					
AEC 2 (T)	AEC-281-HIN / AEC-282-MAR	MIL - I (Hindi)	2	15	35	50	2
		MIL - II (Marathi)					
Total						550	22

Subject: Food Production III PART 1 (THEORY)**Subject Code: HS 201 (P1) T****Vertical:****Major Core MJ****Subject Credits: 04****Hours per week: 04****Semester: III**

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination	Total Marks
30	70	100

Course Outcomes:

- CO 1: Understand the various sectors of the catering industry and analyze the importance of menu planning, volume forecasting, and yield management.
- CO 2: Determine the principles of menu planning and the basics of kitchen layout & management.
- CO 3: Investigate the diversity of Indian regional cooking styles, techniques, and cultural influences.
- CO 4: Understand the indigenous & hyper-local cuisines ingredients & cooking methods.
- CO 5: Identify healthy and functional foods, sustainable practices & innovative menu planning.
- CO 6: Understand fire safety principles, hazard prevention, and modern technologies.

		Hours	Marks
Chapter 1	INTRODUCTION TO QUANTITY FOOD PRODUCTION & YIELD MANAGEMENT IN KITCHEN	10	16
1.1	Introduction to Quantity Food Production: Operational Efficiency, Sustainability, Bulk Cooking Practices		
1.2	Sectors of Catering Industry: Industrial Catering, Institutional Catering (Hospitals & Schools), Banqueting & Welfare Catering - Cost-Effectiveness, Nutrition, Automation, Inclusive Menus		
1.3	Indenting & Procurement: Indent Format, Specifications, Digital Inventory, Sustainable Sourcing		
1.4	Volume Forecasting: Definition, Role In Kitchen Planning, Budgeting & Efficiency (Inventory Management, Production Management, Logistics)		
1.5	Budgetary Control: Definition, Importance, Objectives, Role of Budgeting in Kitchen Operations		
1.6	Types of Budgets in Kitchen: Sales Budget, Production Budget, Material Budget, Labor Budget, Overhead Budget		
1.7	Yield Management: Definition, Importance, Factors Affecting Yield, Yield Percentage Calculation		
1.8	Cost Control Techniques: Portion Control, Waste Management, Standard Recipe, Costing Inventory Control		
Chapter 2	MENU PLANNING & KITCHEN MANAGEMENT FOR LARGE SCALE OPERATIONS	10	16
2.1	Principles Of Menu Planning: Aesthetics, Functionality, Psychology		
2.2	Emerging Trends: Organic, Vegan, Gluten-Free, Allergen-Free, Keto, Low Carb, Low Sodium, Kosher		

2.3	Menu Balancing & Food Costing: Portion Control, AI Based Inventory, Sourcing Local Ingredients		
2.4	Kitchen Layout For Quantity Kitchen: Types Of Kitchens - Commercial vs Residential, Kitchen Design, Equipment Placement, Safety, Accessibility, Efficiency		
2.5	Equipment Handling & Maintenance: Equipment Used In Quantity Cuisine, Classification		
2.6	Preventive Maintenance: Types & Scheduling		
Chapter 3	INDIAN REGIONAL COOKING	15	26
3.1	Regional Cuisines: History, Characteristics, Regional Specialties & Famous Dishes, Specialty Equipment, Religious & Foreign Influence for regions as mentioned below: North (Jammu & Kashmir, Ladakh, Punjab, Uttar Pradesh, Himachal Pradesh, Uttarakhand) South (Telangana, Karnataka, Andhra Pradesh, Tamil Nadu, Kerala) East (West Bengal, Bihar, Orissa, Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura) West (Madhya Pradesh, Rajasthan, Gujarat, Maharashtra, Goa)		
3.2	Specialty cooking methods (Dum, Dhungar, Tandoor, Bhuna, Handi, Paturi, Sukha, Thalippu, Chulha, Bhapa, Fermentation revival)		
3.3	Emergence of Indian regional cuisine in global hospitality		
Chapter 4	INDIGENOUS & HYPER-LOCAL CUISINE	10	16
4.1	Introduction to Indigenous & Hyper-Local Cuisine: Definition, Importance, Role in Culinary Heritage, Cultural Significance		
4.2	Ingredients in Indigenous Cuisine: Locally Sourced Ingredients, Seasonal Produce, Unique Herbs and Spices		
4.3	Preparation, Cooking & Presentation in Indigenous Cuisine: Fermentation, Traditional Cooking Methods (Chulha & Tandoor), Presentation Techniques, Zero Waste Cooking		
4.4	Reviving forgotten recipes: Millets, indigenous ingredient foraging, and regional sourcing		
4.5	Regional Indigenous Cuisines in India: Maharashtra, Bihar, Jharkhand, Chhattisgarh, North-Eastern States		
4.6	Introduction to Traditional Preservation Techniques		
Chapter 5	HEALTHY & FUNCTIONAL FOODS	10	16
5.1	Healthy Foods: Definition, Importance of Nutrition in Menu Planning, Role of Balanced Meals in Customer Wellness & Satisfaction, Use of Whole Grains, Low-GI Foods, Clean Labels		
5.2	Functional Foods: Definition, Types & Health Benefit		
5.3	Role in Preventing Lifestyle Diseases: (High Blood Pressure (BP), High Cholesterol, Diabetes, Obesity)		
5.4	Sustainability in Food: Farm-to-Table Movement, direct farmer relationships, Traceability and food transparency		
5.5	Food Waste Management & Zero-Waste Kitchen: Impact of Food Waste Globally, Nose-To-Tail, Root-To-Stem, Composting, Repurposing Leftovers, and Donation Practices		
5.6	Hospitality Trends: Wellness Tourism & Health-Conscious Dining, Rise of Functional Cafes, Ayurvedic Food, Bio Hacking Meals, Detox Retreats and Diet-Specific Offerings, Wellness Menus, Spa Cuisine		

5.7	Alternative & Sustainable Protein Sources: Introduction to the Global Protein Demand, Plant-Based Proteins, Insect-Based Proteins, Cultured (Lab-Grown) Meat, Mycoprotein & Fungi-Based Proteins, Algae & Seaweed as Protein Sources, Fermentation-Derived Proteins, Challenges in Adopting Alternative Proteins		
Chapter 6	FIRE SAFETY AND HAZARD PREVENTION	05	10
6.1	Introduction to Fire Safety in Commercial Kitchens Understanding fire triangle: Industry standards and legal requirements (NFPA, OSHA, FSSAI norms).		
6.2	Kitchen Fire Safety & its Control Causes of Fire in the Kitchen, Types of Kitchen Fire, Kitchen Fire Safety Standards, Methods and Types of Fire Extinguishers, Personal Safety Equipment and Fire Response Protocols		
6.3	Hazard Analysis in Food Production Food Safety, Identifying Physical, Chemical & Biological Hazards, Cross-contamination, Slip/Fall Areas, Equipment Malfunction, HACCP (Hazard Analysis & Critical Control Points) Integration.		
6.4	Smart Kitchen Tech: Flame Sensors, Automatic Gas Shut-Off Valves, IoT-enabled Fire Suppression Systems, Real-Time Hazard Alerts via Kitchen Management Software		
Total		60	100

Note:

Glossary: Students should be familiar with the glossary of terms pertaining to above mentioned topics.

Assignments: Any FOUR assignments to be submitted by students by the end of the semester.

Sr. No.	Assignment Topic	Assignment Type	Reference Chapter	Expected learning outcome with reference CO number
1	Sustainable Practices in Large-Scale Catering	Field visit, Report & Presentation	Chapter 1	Student will learn to analyze how a hotel or institution incorporates sustainability in bulk food production CO 1
2	Menu Planning for an F&B Outlet	Chart Presentation or Online Menu	Chapter 2	Student will develop a balanced, cost-effective menu with emerging trends as discussed in the chapter CO 2
3	Regional Specialties & Famous Dishes	Individual or Group Presentation	Chapter 3	Students will give a presentation on regional specialties & famous dishes of any state as identified CO 3
4	Indigenous Recipe Book	Individual or Group Submission	Chapter 4	Students will explore indigenous recipes and include their historical significance. Include visuals, personal notes, and interviews with

				local cooks if possible CO 4
5	Healthy and Functional Menu Planning	Presentation of menu with layout & brief description	Chapter 5	Students will develop a healthy and functional menu that includes starters, mains, & desserts. Usage of healthy & functional foods as well as alternative proteins CO 5
6	Observe Food Safety at your Home Kitchen and write a brief report	Written submission with observation report	Chapter 6	Practical knowledge of food safety application in real setting CO 6

References:

1. Quantity Food Production and Indian Cuisine by Parvinder S. Bali
 2. Food Production Operations by Parvinder S. Bali
 3. Professional Cooking (Wiley) by Wayne Gisslen
 4. Modern Cookery for Teaching and the Trade (Vol I & II) by Thangam E. Philip
 6. Menu Engineering: A Practical Guide to Menu Analysis by Michael Kasavana & Donald Smith
 7. Design and Layout of Foodservice Facilities by John C. Birchfield
 8. Catering Management by Mohini Sethi
 9. India: The Cookbook by Pushpesh Pant
 10. Prashad: Cooking with Indian Masters by J. Inder Singh (Jiggs) Kalra
 11. Indian Superfoods by Rujuta Diwekar
 12. Made in India: Cooked in Britain (Great International Perspective on Indian Home Cooking) by Meera Sodha
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Subject: Food Production III PART 1 (PRACTICAL)**Subject Code: HS 201 (P1) P****Vertical:****Major Core MJP****Subject Credits: 02****Hours per week: 04****Semester: III**

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination (Performance in the Practical Exams)	Total Marks
15	35	50

Course Outcomes:

CO 1: Formulate industrial menu for large-scale food production.

CO 2: Discover regional flavors, cooking techniques, and nutritional balance.

CO 3: Understand food safety & budgeting and apply recipe standardization & cost control.

Practicals:

Teachers/Instructors may customize the menu based on student learning goals, availability of ingredients, and practical feasibility.

Please note, the regions and dishes listed below are for reference and suggestions only.

Practical No.	Category	Region	Suggested Dishes
1	Industrial Menu	—	Meat Curry, Vegetable Pulao, Moong Dal Tadka, Boondi Raita, Gulab Jamun
2	Industrial Menu	—	Vegetable Kofta Curry, Jeera Rice, Toor Dal Fry, Cabbage Salad, Paratha, Fruit Custard
3	Indian Breakfast	—	Upma, Idli, Medu Vada, Coconut Chutney, Sambhar, Filter Coffee
4	Indian Breakfast	—	Poha, Assorted Parathas, Puri Bhaji, Masala Chai
5	Indian Regional Menu (North)	Jammu & Kashmir	Rogan Josh, Nadru Yakhni, Dum Aloo, Kashmiri Rajma, Saffron Pulao, Sheermal, Mujh Chetin, Anardana Chutney, Modur Pulao
6	Indian Regional Menu (North)	Punjab	Butter Chicken, Aloo Gobi, Dal Makhani, Vadiyan Pulao, Laccha Paratha, Sirke Vaala Pyaaz, Phirni
7	Indian Regional Menu (North)	Himachal Pradesh	Chha Gosht, Sepu Vadi, Teliya Mah Dal, Steamed Rice, Mandiyali Roti, Pickled Onion, Mittha
8	Indian Regional Menu (South)	Karnataka	Bisi Bele Bhat, Ragi Mudde with Sambar, Tovve, Akki Roti, Kosambari, Mysore Pak, Kayi Holige
9	Indian Regional Menu (South)	Tamil Nadu	Chettinad Chicken Curry, Beans Poriyal, Rassam, Steamed Rice, Appam, Payasam
10	Indian Regional Menu (South)	Kerala	Meen Curry, Avial, Parippu Curry, Red Rice, Kerala Parotta, Banana Chips, Ada Pradhaman
11	Indian Regional Menu (East)	West Bengal	Macher Jhol, Aloo Posto, Cholar Dal, Gobindobhog Rice, Luchi, Tomato Chutney, Mishti Doi

12	Indian Regional Menu (East)	Assam	Masoor Tenga, Xaak Bhaji, Mong Dal, Joha, Raw Papaya Chutney, Pitha
13	Indian Regional Menu (West)	Gujarat	Undhiyu, Dhokla, Gujarati Dal, Thepla, Shrikhand
14	Indian Regional Menu (West)	Goa	Prawn Curry, Tendli Bhaji, Toor Dal, Steamed Rice, Poi, Mango Pickle, Bebinca
15	Indian Regional Menu (West)	Maharashtra	Kolhapuri Chicken Curry, Bharli Vangi, Aamti, Masale Bhaat, Bajra/Jowar Bhakri, Puran Poli, Thecha, Koshimbir, Basundi

Note:

- 15 practicals should be planned for the semester.
 - All practicals are to be planned for bulk cooking.
 - Industrial menu consisting of meat / vegetable, rice, dal, accompaniment, bread & dessert – **02 Practical**s
 - Indian Breakfast Menu **02 Practical**s
 - Indian regional menu (minimum two from each zone) consisting of meat, veg (dry / gravy), dal, rice, accompaniment, bread & dessert – **11 Practical**s
 - **North** (Jammu & Kashmir, Ladakh, Punjab, Uttar Pradesh, Himachal Pradesh, Uttarakhand).
 - **South** (Telangana, Karnataka, Andhra Pradesh, Tamil Nadu, Kerala)
 - **East** (West Bengal, Bihar, Orissa, Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura)
 - **West** (Madhya Pradesh, Rajasthan, Gujarat, Maharashtra, Goa)
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Subject: Food Production III PART 2 (THEORY)**Subject Code: HS 201 (P2) T****Vertical:****Major Core MJ****Subject Credits: 04****Hours per week: 04****Semester: III**

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination	Total Marks
30	70	100

Course Outcomes:

- CO 1: Analyze the role of ingredients and fermentation techniques in artisan baking while applying modern trends like gluten-free, keto, and AI-powered baking.
- CO 2: Demonstrate proficiency in traditional and modern types of pastry doughs and techniques and evaluate faults in baking.
- CO 3: Construct various icing, frosting, and chocolate decorations while understanding tempering and bonbon-making techniques to enhance presentation and shelf-life.
- CO 4: Understand cake & cookie making methods and incorporate various relevant techniques.
- CO 5: Analyze the application of ERP, recipe management, and inventory software in food businesses to optimize efficiency, cost control, and quality management.
- CO 6: Assess the impact of Internet of Things (IoT), AI, and cyber security in modern food production and design technology-driven solutions for smart inventory, Point of Sale (POS), and sustainable IT applications.

		Hours	Marks
Chapter 1	CONFECTIONERY & ARTISAN BAKING	10	15
1.1	Yeast Dough (Fermented Goods): Role of ingredients: Function of Flour, Yeast, Water, Salt & Fats Alternative Flours (Gluten-Free, Whole Grain) & Natural Fermentation		
1.2	Principles of Bread Making: Fermentation, Gluten Development, Hydration, New age breads: Low-Carb, High-Protein, Gluten-Free, Keto, Plant-Based Breads		
1.3	Types– (Rich & lean): Rich: Brioche, Challah, Croissants Lean: Baguettes, Sourdough, Ciabatta		
1.4	Methods of Bread making: Traditional, Straight Dough, Sponge, Sourdough		
1.5	Modern trends of Bread Making: No-Knead, Cold Fermentation, AI-Powered Baking Stages In Bread Making (Mixing, Fermentation, Proofing, Shaping, Baking, Cooling) Smart Baking Tools, Steam Injection Ovens		
Chapter 2	BAKERY & PATISSERIE	10	15
2.1	Introduction to Pastry Dough: Definition and Types of Pastry Dough, Importance of Pastry in Bakery & Patisserie, Basic Ingredients and Their Functions		
2.2	Short Crust Pastry: Preparation Method (Rubbing-In, Creaming) Sweet and Savory Short Crust Pastries (Tarts, Pies,		

<p>2.3</p> <p>2.4</p>	<p>Quiches)</p> <p>Puff Pastry: Lamination Process, Layering Techniques, Resting and Baking Conditions, Sweet and Savory Puff Pastries (Vol-au-vent, Mille-Feuille, Puffs)</p> <p>Faults, Remedies, and Quality Checks: Common Pastry Dough Faults, Techniques for Improving Texture and Flavor, Quality Control Measures</p>		
Chapter 3	ICING, FROSTING & FILLINGS AND CHOCOLATE	08	15
<p>3.1</p> <p>3.2</p> <p>3.3</p> <p>3.4</p> <p>3.5</p>	<p>Definition and Importance of Icings and Frostings: Types of Icings (Buttercream, Royal Icing, Glaze, Fondant), Fillings for Cakes and Pastries (Ganache, Custard, Creams)</p> <p>Piping Techniques and Decoration: Piping Bags and Nozzles, Basic Piping Patterns (Rosettes, Borders, and Leaves)</p> <p>Introduction to Chocolate Work: Brief History, Types of Chocolate, Tempering of Chocolate</p> <p>Chocolate Making and Bonbons: Techniques for Making Bonbons (Molded and Hand-Rolled), Fillings for Bonbons (Ganache, Praline, Caramel)</p> <p>Presentation and Storage: Packaging and Presentation of Chocolate Products, Storage Conditions, Shelf-Life</p>		
Chapter 4	CAKES, COOKIES & CONFECTIONERY	08	15
<p>4.1</p> <p>4.2</p> <p>4.3</p> <p>4.4</p> <p>4.5</p> <p>4.6</p> <p>4.7</p>	<p>Introduction & Trends: Introduction to Cakes & Cookies, Evolution, Modern Trends (Gluten-Free, Keto, Vegan)</p> <p>Key Ingredients & Their Roles: Flour, Sugar, Fats, Leavening Agents, Impact On Texture, Flavor & Structure</p> <p>Cake Making Process & Faults: Ingredient Combining, Air Incorporation, Scaling, Mixing (Creaming, All-In-One, Rubbing-In), Common Cake Faults</p> <p>Baking Essentials: Oven Temperature, Pan Selection, Cooling Methods</p> <p>Cake Decoration & Presentation: Minimalism, Edible Flowers, Buttercream Art, Photogenic Cakes, Plant-Based Accents</p> <p>Cookie Making: Types (Piped, Dropped, Rolled, Molded, Icebox, Sheet, Sandwich), Textures (Crisp, Chewy, Soft), Factors Affecting Texture, Modern Flavors (Matcha, Chai-Spiced, etc.), Health-Conscious & Allergen-Free Variations</p> <p>Mixing Methods for Cookies & their Faults: Air Incorporation, Creaming, One-Bowl, Reverse Creaming, Air Cell Formation for Texture Development, Common Cookie Faults</p>		
Chapter 5	COMPUTER SOFTWARE AND INFORMATION TECHNOLOGY (IT) APPLICATIONS	12	20
<p>5.1</p> <p>5.2</p> <p>5.3</p> <p>5.4</p> <p>5.5</p>	<p>Introduction to Computer Software in Food Production: Importance of Software Applications, Role of IT in Modern Food Businesses</p> <p>Recipe Management Software: Features, Functions & Importance</p> <p>Inventory Management Software: Importance of Inventory Control in Food Production, Real-Time Inventory Tracking, Integration with Purchase and Production Modules</p> <p>Enterprise Resource Planning (ERP) in Food Businesses: Overview of ERP Systems, Functions of ERP in Food Businesses (Inventory, Production, Sales, etc.)</p> <p>Quality Control and Food Safety Management Software:</p>		

	Importance of Quality Control in Food Production, Food Safety Documentation and Compliance Digital Record Keeping and Reporting		
5.6	Customer Relationship Management (CRM) and POS Integration: Role of CRM in Food Businesses, Integration of POS with CRM Systems, Benefits of Customer Data Management		
Chapter 6	INTERNET OF THINGS (IoT) IN FOOD PRODUCTION	12	20
6.1	Introduction to Technology: Importance of Technology in Food Industry, Overview of Digital Transformation in Food Production, Emerging Trends in Technology Integration		
6.2	Internet of Things (IoT): Concept and Applications of IoT in Food Production, Smart Sensors and Equipment Automation, Benefits of IoT in Quality Control and Inventory Management		
6.3	Point-of-Sale (POS) Integration with Food Production Software: Role of POS Systems in Food Business, Integration of POS with Inventory and Production Software, Advantages in Order Management and Reporting		
6.4	Cyber security and IT Compliance: Importance of Cyber security in Food Businesses, Common Cyber Threats in Food Industry, IT Compliance and Data Protection Regulations		
6.5	Artificial Intelligence (AI) and Automation: Use of AI in Quality Control and Production, Planning Automation in Food Packaging and Sorting		
6.6	Sustainable IT Solutions: Energy-Efficient Systems and Smart Appliances, Digital Waste Management Solutions, Role of Technology in Sustainable Sourcing and Production		
6.7	Mobile Applications and E-Commerce for Food Businesses: Importance of Mobile Apps in Food Delivery and Customer Interaction, Digital Payment Solutions, Role of E-Commerce Platforms in Food Business Expansion		
Total		60	100

Note:

Glossary: Students should be familiar with the glossary of terms pertaining to above mentioned topics.

Assignments: Any FOUR assignments to be submitted by students by the end of the semester.

Sr. No.	Assignment Topic	Assignment Type	Reference Chapter	Expected learning outcome with reference CO number
1	Presentation on Modern trends of Bread Making	PPT Presentation – Individual or Group	Chapter 1	Students will present on the various trends in bread making as discussed in theory. CO 1
2	Contribution Chart on Pastries	Class Group Assignment	Chapter 2	Students will prepare a combined chart on pastries and add contribution in terms of photos and/or information CO 2
3	List of Popular cakes with types	Written assignment	Chapter 3	Students will note down popular cakes which are

	of icings			prepared/presented using the various icings and frostings as covered in theory. CO 3
4	Cakes and Cookies across the world	PPT Presentation or written assignment	Chapter 4	Students will be allocated regions/countries and they will research the popular cakes and cookies from there and present the same CO 4
5	Comparison between manual and automated recipe and inventory management	Written assignment	Chapter 5	Students will prepare a comparison chart between the olden day methods and current and future practices highlighting the benefits and drawbacks CO 5
6	Benefits of AI in Food Production	Written assignment	Chapter 6	Students will note and discuss the areas/sections in Hospitality where the use of AI brings benefits in Food Production CO 6

References:

1. Professional Baking- Wayne Gisslen
2. Basic Baking – S.C. Dubey
3. The Bread Baker's Apprentice– Peter Reinhart
4. Theory of Catering- Victor Ceserani & Ronald Kinton, ELBS
5. Theory of Bakery and Confectionery – Yogambal Ashokkumar (PHI Learning)
6. Theory of Cookery- Mr. K. Arora, Franck Brothers
7. Handbook of Bakery and Confectionery – S. K. Gupta
8. Tartine Bread – Chad Robertson
9. The Professional Pastry Chef– Bo Friberg
10. Advanced Bread and Pastry – Michel Suas
11. Professional Catering – Stephen B. Shiring (Cengage)
12. Bread Science: The Chemistry and Craft of Making Bread – Emily Buehler
13. The Art of the Cookie – Shelly Kaldunski
14. Food Processing Technology – P.J. Fellows (Covers automation, software, and production planning)
15. Information Technology for the Food Industry – J. Smith & C. Hui (Focuses on IT applications like ERP and inventory systems).
16. Enterprise Resource Planning: Concepts and Practice – V.K. Garg & N.K. Venkatakrishnan (Detailed ERP insights with business use cases)
17. Managing Food Safety and Hygiene – Bridget Hutter (Highlights food safety compliance and digital record keeping)
18. Customer Relationship Management – Francis Buttle & Stan Maklan (Explains CRM systems and POS integration)
19. Food Industry 4.0 – Charis M. Galanakis (Emerging Technologies in Food Industry Comprehensive coverage of IoT, AI, and automation in food)
20. Internet of Things: Architecture and Applications – Rajkumar Buyya (Explains IoT sensors, connectivity, and real-time monitoring)
21. Cyber security for Industrial Control Systems – Tyson Macaulay (Relevant for IT compliance and cyber risk in food plants)

22. Artificial Intelligence in the Food Industry – Dr. B.S.K. Shetty (Ed.) (AI use cases in food sorting, planning, and QC)
 23. E-Commerce in the Food Industry – Mehmet H. Bilgin (Covers digital sales, mobile apps, and payment systems)
 24. Smart and Sustainable Food Technologies – Charis M. Galanakis (Focus on green IT, digital waste control, and sustainability)
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Subject: Food Production III PART 2 (PRACTICAL)**Subject Code: HS 201 (P2) P****Vertical: Major Core MJP****Subject Credits: 02****Hours per week: 04****Semester: III**

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination (Performance in the Practical Exams)	Total Marks
15	35	50

Course Outcomes:

CO 1: Develop hands-on experience in artisan breads, pastries, chocolate work.

CO 2: Understand the role of ingredients and factors affecting texture, flavor, and structure.

CO 3: Develop artistic skills in cake decoration, and chocolate craft.

CO 4: Recognize HACCP standards, proper storage, and hygiene practices in bakery production.

CO 5: Incorporate time management, teamwork, and problem-solving skills for professional baking careers.

Practicals:

Teachers/Instructors may customize the menu based on student learning goals, availability of ingredients, and practical feasibility.

Please note, the dishes listed below are for reference and suggestions only.

Practical No.	Category	Product 1	Product 2	Product 3
1	Confectionery / Artisan Baking / Yeast Dough	Bread Loaf	Challah	Multigrain Bread
2	Confectionery / Artisan Baking / Yeast Dough	Praline Bonbons	Sourdough Boule	Brioche Nanterre
3	Confectionery / Artisan Baking / Yeast Dough	Gianduja Mousse Cake	Ciabatta with Natural Levain	Cinnamon Rolls
4	Confectionery / Artisan Baking / Yeast Dough	Caramel Nougat Bars	Sourdough Baguette	Croissants
5	Pastry Dough / Short Crust / Puff Pastry	Éclairs	Lemon Tart	Mille-Feuille (Napoleon)
6	Pastry Dough / Short Crust / Puff Pastry	Paris-Brest	Quiche Lorraine	Vol-au-Vent
7	Pastry Dough / Short Crust / Puff Pastry	Profiteroles (Choux)	Frangipane Tart	Cheese Straws
8	Icing / Frosting / Chocolate Work / Bonbons	Swiss Meringue Buttercream	Chocolate Curls & Shavings	Dark Chocolate Truffles
9	Icing / Frosting / Chocolate Work / Bonbons	Diplomat Cream	Tempered Chocolate Decorations	Salted Caramel Bonbons
10	Icing / Frosting / Chocolate Work / Bonbons	Chocolate Ganache	Marbled Chocolate Sheets	Raspberry Ganache Bonbons

11	Cakes / Cookies / Confectionery	Black Forest Cake	Nankhatai	Turkish Delight
12	Cakes / Cookies / Confectionery	Opera Cake	Biscotti	Peanut Brittle
13	Cakes / Cookies / Confectionery	Victoria Sponge Cake	Shortbread Cookies	Marshmallows
14	Cakes / Cookies / Confectionery	Coconut Macaroons	Chocolate Chip Cookies	Gingersnap
15	Cakes / Cookies / Confectionery	Pound Cake	Carrot Cake	Pineapple Upside Down Cake

Note:

- 15 practicals should be planned for the semester.
 - Each practical should constitute a minimum of 3 products.
 - Minimum 3 practicals must be conducted from each of the 4 identified categories.
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Subject: Food & Beverage Service III PART 1 (THEORY)

Subject Code: HS 202 (P1) T **Vertical:** Major Core MJ

Subject Credits: 04 **Hours per week:** 04

Semester: III

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination	Total Marks
30	70	100

Course Outcomes:

- CO 1: Understand wine, key grape varieties and various viticulture methods and diseases.
 CO 2: Describe the stages of winemaking for still, sparkling, aromatized, and fortified wines, and assess modern innovations such as automation and sustainable practices.
 CO 3: Develop sensory evaluation skills, tasting terminology, pairing principles to various cuisines with cultural sensitivity.
 CO 4: Discuss wine regions, key wines, and label laws from certain old world countries.
 CO 5: Discuss wine regions and key wines from certain new world countries.
 CO 6: To identify major types of fortified and aromatized wines, understand their production processes, and recognize their historical significance & regional traditions.

		Hours	Marks
Chapter 1	WINE & VITICULTURE	15	20
1.1	Fundamentals of Wine: Definitions and Overview, Historical Context and Significance		
1.2	Grape Varieties: Key International and Indigenous Grape Varieties, Characteristics and Flavor Profile		
1.3	Classification of Wine: Still, Sparkling, Aromatized, and Fortified		
1.4	Viticulture Methods: Fundamentals of Grape Growing, Traditional and Modern Viticulture Practices		
1.5	Vine Diseases: Common Pests and Diseases Affecting Vineyards, Prevention and Management Strategies		
Chapter 2	VINIFICATION OF WINE	10	20
2.1	Stages of Wine making for Still Wines: Harvesting & Segregation, Crushing/Pressing, Fermentation, Racking & Fining, Aging & Blending, Bottling & Corking, Maturing, Storage		
2.2	Stages of Wine making for Sparkling Wines: Harvesting & Segregation, Crushing/Pressing, Fermentation, Racking & Fining, Secondary Fermentation (Bottle & Tank Methods), Riddling, Disgorgement, Dosage, Bottling & Corking, Maturing, Storage		
2.3	Automation in Wine Making		
2.4	Sustainable Practices in Wine Making: Grape Seed Oil, Fertilizer, Organic Farming, Solar Power		
2.5	Storage of Wine: Wine Cellar Management, Ideal Conditions for Wine Storage, Importance of Proper Cellaring		
2.6	Emerging Trends & Innovative Wine: Wine in Can, Fruit Wine (Litchi, Jamun, Pomegranate, Guava, Mango), Flavoured Wines, Wines from Table Grapes		

Chapter 3	WINE EVALUATION & PAIRING	08	15
3.1	Wine Tasting and Sensory Evaluation: Techniques for Assessing Wine's Appearance, Aroma, and Taste		
3.2	Key Terminology Used in Wine Evaluation		
3.3	Principles of Pairing Wine		
3.4	Cultural Sensitivity in Wine Pairing		
Chapter 4	OLD WORLD WINES I	12	20
4.1	France: Historical Development: Flavor Profiles, Cultural Preferences & Gastronomic Traditions Key Regions: Bordeaux, Burgundy, Champagne, Loire Valley Key Wines: Bordeaux Red: Château Margaux, Château Lafite Rothschild, Burgundy: Chablis, Champagne: Moët & Chandon, Châteauneuf-du-Pape Label Laws: Institut National de l'Origine et de la Qualité (INAO), Appellation d'Origine Contrôlée (AOC), Vin Délimité de Qualité Supérieure (VDQS)		
4.2	Spain: Historical Development: Flavor Profiles, Cultural Preferences & Gastronomic Traditions Key Regions: Rioja, Ribera del Duero, Priorat Key Wines: Rioja Reserva, Cava, Sherry, Marqués de Riscal, Compañía Vinícola del Norte de España (CVNE) Label Laws: Denominación de Origen Calificada (DOCa), Denominación de Origen (DO)		
4.3	Germany: Historical Development: Flavor Profiles, Cultural Preferences & Gastronomic Traditions Key Regions: Mosel, Rheingau, Rheinhessen, Ahr, Franken Key Wines: Dr. Loosen, Robert Weil, Wittmann, Dönnhoff Label Laws: (Qualitätswein mit Prädikat (QmP), Qualitätswein bestimmter Anbaugebiete (QbA)		
Chapter 5	NEW WORLD WINES I	10	15
5.1	South Africa: Historical Development: Flavor Profiles, Cultural Preferences & Gastronomic Traditions Key Regions: Stellenbosch, Paarl, Swartland, Constantia Key Wines: Chenin Blanc, Paul Sauer, Rubicon, Columella		
5.2	Australia: Historical Development: Flavor Profiles, Cultural Preferences & Gastronomic Traditions Key Regions: Barossa Valley, Hunter Valley, Yarra Valley, Margaret River Key Wines: Penfolds, Jacob's Creek, Wolf Blass, Yellow Tail		
5.3	USA: Historical Development: Flavor Profiles, Cultural Preferences & Gastronomic Traditions Key Regions: Napa Valley, Sonoma County, Willamette Valley, Columbia Valley Key Wines: Robert Mondavi, Opus One, Caymus Vineyards, Silver Oak		

Chapter 6	FORTIFIED & AROMATIZED WINES	05	10
6.1	Introduction: Definition, Historical Significance & Regional Traditions		
6.2	Types & Styles of Fortified & Aromatized Wines		
6.3	Manufacturing Process		
6.4	Popular Fortified Wines: Port (Portugal), Sherry (Spain), Madeira (Portugal), Marsala (Italy)		
6.5	Solera System		
Total		60	100

Note:

Glossary: Students should be familiar with the glossary of terms pertaining to above mentioned topics.

Assignments: Any FOUR assignments to be submitted by students by the end of the semester.

Sr. No.	Assignment Topic	Assignment Type	Reference Chapter	Expected learning outcome with reference CO number
1	International and Indian grapes varieties	Presentation	Chapter 1	Student will be able to identify key International and Indian grape varieties CO 1
2	Write a report on modern innovations and sustainable practices in the production of wines	Field visit & report	Chapter 2	Students will be sensitized towards sustainable practices and modern innovation in wine making CO 2
3	Create a wine tasting booklet mentioning recommended dishes to pair wines with	Written assignment	Chapter 3	Students will prepare a booklet with wine tasting notes and give food pairing recommendations CO 3
4	Wine Labels of key wines of Old World	Presentation	Chapter 4	Students will present physical or copies of wine labels of the key wines as mentioned in the chapter CO 4
5	Wine Labels of key wines of New World	Presentation	Chapter 5	Students will present physical or copies of wine labels of the key wines as mentioned in the chapter CO 5
6	Presentation on Solera System	Presentation / Video / Class work	Chapter 6	Students will prepare a presentation or a video or a live model to explain the Solera System CO 6

References:

1. Food & Beverage Service by Dennis Lillicrap and John Cousins.
2. Food & Beverage Service by R. Sinagaravelavan.
3. Food & Beverage Service Training Manual by Sudhir Andrews, Tata McGraw Hill.
4. Modern Restaurant Service by John Fuller.
5. The Restaurant (from Concept to Operation) by Lipinski.
6. Bar and Beverage Book by Chris Katsigris, Chris Thomas.
7. Textbook of Food & Beverage Service by Anita Sharma, S. N. Bagchi.

Subject: Food & Beverage Service III PART 1 (PRACTICAL)

Subject Code: HS 202 (P1) P **Vertical:** Major Core MJP

Subject Credits: 02 **Hours per week:** 04

Semester: III

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination (Performance in the Practical Exams)	Total Marks
15	35	50

Course Outcomes:

- CO 1: Interpret and analyze wine labels from major wine-producing countries including France, Spain, Germany, South Africa, Australia & USA, to assess authenticity, classification, and regional characteristics.
- CO 2: Outline wine service tasks including order-taking and recommending wines.
- CO 3: Demonstrate professional wine service techniques for still, sparkling & fortified wines
- CO 4: Develop food and wine pairing strategies based on regional cuisines and wine profiles, emphasizing harmonization principles and sensory compatibility.
- CO 5: Formulate themed menus with appropriate wine pairings from various global regions, applying knowledge of flavor profiles, cultural preferences, and gastronomic traditions.

Practicals:

Minimum **15 Individual Practicals** to be conducted during the semester

1. Identification of Wine Service Equipment (Wine Openers, Cork Extractor, Wine Chiller, Glassware, etc.)
 2. Making Of Fruit Wine (Litchi, Jamun, Pomegranate, Guava, Mango etc.)
 3. Interpret Wine Labels
 4. Designing Wine Label
 5. Taking Order For Wine
 6. Service Procedure of White Wine & Rosé Wine
 7. Service Procedure Red Wine
 8. Service Procedure of Old Red Wine (Decanting Method)
 9. Service Procedure of Sparkling Wine & Champagne
 10. Service Procedure of Sherry, Port, Madeira & Marsala Wine
 11. Wine Tasting Techniques
 12. Food & Wine Pairing
 13. Plan 3/4/5 Course Menu with Appropriate Old World Wines
 14. Plan 3/4/5 Course Menu with Appropriate New World Wines
 15. Plan 3/4/5 Course Indian Menu with Appropriate Wines (Wines from France, Spain, Germany, South Africa, Australia & USA)
-

Subject: Food & Beverage Service III PART 2 (THEORY)

Subject Code: HS 202 (P2) T **Vertical:** Major Core MJ

Subject Credits: 04 **Hours per week:** 04

Semester: III

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination	Total Marks
30	70	100

Course Outcomes:

CO 1: Explain the history, ingredients, brewing process & types of beers.

CO 2: Describe the production, origin, and popular brands of other fermented beverages.

CO 3: Identify and differentiate between wine-based and spirit-based aperitifs, common bitters and popular digestives.

CO 4: Discuss wine regions, key wines, and label laws from certain old world countries.

CO 5: Discuss wine regions and key wines from certain new world countries.

CO 6: Identify bar tools and equipment, perform key bartender and wine sommelier tasks, understand basic bar documentation and permits.

		Hours	Marks
Chapter 1	BEER	15	24
	1.1 Introduction, Definition and History of Beer 1.2 Ingredients and their Role: Water, Barley & Other Grains, Yeast, Sugar, Hops 1.3 Steps in Beer Production 1.4 Types of Beer: Ales, Lager, Porter, Stout, Bock 1.5 Faults in Beer 1.6 National & International Brands of Beer 1.7 New & Popular Trends in the Beer Industry: Draught Beer, Beer Tower, Craft Beer, Microbreweries, Low Alcoholic and Non-Alcoholic Beer		
Chapter 2	OTHER FERMENTED BEVERAGES	06	10
	2.1 Cider: Introduction & Brands 2.2 Perry: Introduction & Brands 2.3 Mead: Introduction & Brands 2.4 Sake: Introduction & Brands 2.5 Soju: Introduction & Brands 2.6 Toddy: Introduction & Brands 2.7 Palm Wine: Introduction & Brands		
Chapter 3	APERITIFS, BITTERS AND DIGESTIVES	05	08
	3.1 Definition & Types 3.2 Wine based Aperitifs: Vermouth, Lillet & Dubonnet 3.3 Spirit based Aperitifs: Campari, Aperol & Pastis 3.4 Bitters: Definition & Brands 3.5 Digestives: Definition & Brands		

Chapter 4	OLD WORLD WINES II	13	22
4.1 Italy:	Historical Development: Flavor Profiles, Cultural Preferences & Gastronomic Traditions Key Regions: Veneto, Tuscany, Lombardy, Piedmont, Sicily, Veneto Key Wines: Chianti, Barolo, Prosecco, Antinori, Sassicaia Label Laws: Denominazione di Origine Controllata e Garantita (DOCG), Denominazione di Origine Controllata (DOC)		
4.2 Portugal:	Historical Development: Flavor Profiles, Cultural Preferences & Gastronomic Traditions Key Regions: Douro, Alentejo, Vinho Verde Key Wines: Port, Madeira, Vinho Verde Label Laws: Denominação de Origem Controlada (DOC), Indicação de Proveniência Regulamentada (IPR)		
4.3 Hungary:	Historical Development: Flavor Profiles, Cultural Preferences & Gastronomic Traditions Key Regions: Tokaj, Eger, Villány & Szekszárd Key Wines: Royal Tokaji, Oremus, Szepsy Label Laws: Oltalom alatt álló Eredetmegjelölés (OEM), Oltalom alatt álló Földrajzi Megjelölés (OF)		
Chapter 5	NEW WORLD WINES II	13	22
5.1 Argentina:	Historical Development: Flavor Profiles, Cultural Preferences & Gastronomic Traditions Key Regions: Mendoza, Patagonia, San Juan, Salta Key Wines: Bodega Catena Zapata, Bodega Salentein, Bodega Norton		
5.2 Chile:	Historical Development: Flavor Profiles, Cultural Preferences & Gastronomic Traditions Key Regions: Maipo Valley, Colchagua Valley, Casablanca Valley Key Wines: Concha-y-Toro, Viña Montes, Errazuriz, Viña Santa Rita		
5.3 New Zealand:	Historical Development: Flavor Profiles, Cultural Preferences & Gastronomic Traditions Key Regions: Marlborough, Central Otago, Hawke's Bay Key Wines: Cloudy Bay, Villa Maria, Greywacke, Ata Rangi		
5.4 India:	Historical Development: Flavor Profiles, Cultural Preferences & Gastronomic Traditions Key Wine Regions: Nashik, Pune, Bangalore Key Wines: Sula Chenin Blanc, Grover Zampa La Réserve, Fratelli Sette		
Chapter 6	BASICS OF BARTENDING	08	14
6.1 Equipment in Bar:	Small & Large equipment		
6.2 Essential Skills Required:	Bartender & Wine Sommelier		
6.3 Duties and Responsibilities:	Bartender & Wine Sommelier		
6.4 Documents:	Nokarnama, Foreign Liquor Register (FLR), Stock Register		
6.5 Bar Permits:	Per Day, Weekend		
6.6 Mobile or Banquet Bar Set Up			
Total		60	100

Note:

Glossary: Students should be familiar with the glossary of terms pertaining to above mentioned topics.

Assignments: Any FOUR assignments to be submitted by students by the end of the semester.

Sr. No.	Assignment Topic	Assignment Type	Reference Chapter	Expected learning outcome with reference CO number
1	Conduct a market study of national and international beer brands	Research, Presentation	Chapter 1	Students will compare 2 Indian and 2 international beer brands with focus on their brewing styles, product ranges, marketing strategies, and customer base CO 1
2	Describe the history and cultural significance of any 1 Fermented Beverage and its country of origin (eg. Sake & Japan)	PPT	Chapter 2	To understand the role of fermented beverages and cultural insights for the country of origin CO 2
3	Design a pre-dinner drinks menu for a fine dining restaurant. Include at least 2 aperitifs (1 wine-based, 1 spirit-based), 1 bitter and 2 digestives	Research, Presentation	Chapter 3	Students will have a deep understanding about aperitifs and digestives, and will be able to differentiate between the two CO 3
4	Wine Labels of key wines of Old World	Presentation	Chapter 4	Students will present physical or copies of wine labels of the key wines as mentioned in the chapter CO 4
5	Describe the wine produced in Nashik, Pune and Bangalore with two examples of each	Research, Presentation	Chapter 5	Students will be able to identify wine history, key wine styles, grapes and manufacturing process of Indian wines CO 5
6	Prepare and submit a video of minimum 1 minute showing any aspect of the job of a bartender or wine sommelier	Video Presentation	Chapter 6	Students will showcase any aspect of the job performed by bartender or wine sommelier to gain better insight on duties & responsibilities (eg. Bar opening duties, communicating with a guest, etc.) CO 6

References:

1. Food & Beverage Service – Dennis Lillicrap and John Cousins
2. Food & Beverage Service – R. Sinagaravelavan
3. Food & Beverage Service Training Manual – Sudhir Andrews, Tata McGraw Hill
4. Modern Restaurant Service – John Fuller
5. The Restaurant (from Concept to Operation) – Lipinski
6. Bar and Beverage Book–Chris Katsigris, Chris Thomas
7. Textbook of Food & Beverage Service – Anita Sharma, S. N. Bagchi
8. Textbook of Food & Beverage Service – Bobby George

Subject:	Food & Beverage Service III PART 2 (PRACTICAL)		
Subject Code:	HS 202 (P2) P	Vertical:	Major Core MJP
Subject Credits:	02	Hours per week:	04
Semester:	III		

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination (Performance in the Practical Exams)	Total Marks
15	35	50

Course Outcomes:

- CO 1: Identify and describe various beer service equipment.
- CO 2: Demonstrate correct procedures for order taking and service of bottled, canned, draught beer, and beer towers.
- CO 3: Apply appropriate service techniques for aperitifs, bitters, and other fermented beverages.
- CO 4: Develop food and wine pairing strategies based on regional cuisines and wine profiles, emphasizing harmonization principles and sensory compatibility.
- CO 5: Formulate themed menus with appropriate wine pairings from various global regions, applying knowledge of flavor profiles, cultural preferences, and gastronomic traditions.
- CO 6: Identify, maintain, and set up bar equipment.

Practicals:

Minimum **15 Individual Practicals** to be conducted during the semester

1. Identification of Beer Service Equipment (Beer Openers, Glasses)
2. Procedure of Order Taking of Beer
3. Service Procedure of Bottled Beer, Canned Beer, Beer Tower & Draught Beer
4. Service Procedure of Other Fermented Beverages
5. Service Procedure of Aperitifs & Bitters
6. Plan 3/4/5 Course Menu with Appropriate Old World Wines From Italy
7. Plan 3/4/5 Course Menu with Appropriate Old World Wines From Portugal
8. Plan 3/4/5 Course Menu with Appropriate Old World Wines From Hungary
9. Plan 3/4/5 Course Menu with Appropriate New World Wines From Argentina & Chile
10. Plan 3/4/5 Course Menu with Appropriate New World Wines From New Zealand
11. Plan 3/4/5 Course Indian Menu with Appropriate Wine Pairings Wines From Italy, Portugal, Hungary
12. Plan 3/4/5 Course Indian Menu with Appropriate Wine Pairings Of Indian Wines
13. Identify Bar Equipment
14. Care and Maintenance of Bar Equipment: Big and Small Equipment
15. Set Up of Mobile or Banquet Bar

Subject: Rooms Division III PART 1 THEORY (HOUSEKEEPING)

Subject Code: HS 203 (P1) T **Vertical:** Major Core MJ

Subject Credits: 04 **Hours per week:** 04

Semester: III

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination	Total Marks
30	70	100

Course Outcomes:

- CO 1: Demonstrate the roles and responsibilities of a housekeeping supervisor
 CO 2: Understand the concept of Contracts & Outsourcing
 CO 3: Explain the key concepts of Linen room and Uniform operations
 CO 4: Outline the types and functions of Laundry
 CO 5: Discover the concept, types and shapes of Flower Arrangement
 CO 6: Identify effective practices in floor pantry operations
 CO 7: Recognize effective pest control management procedures & benefits
 CO 8: Summarize the role of housekeeping in health clubs & spas

		Hours	Marks
Chapter 1	HOUSEKEEPING SUPERVISION	08	14
1.1	Role of a Supervisor		
1.2	Functions of Supervisor: Guest Rooms & Public Area Inspection		
1.3	Checklist for Inspection		
1.4	Dirty Dozen		
1.5	Role of Housekeeping in Health Club & Spa: Infection Control, Hygiene & Cleanliness, Maintenance		
Chapter 2	CONTRACTS & OUTSOURCING	08	14
2.1	Definition and Concept of Contract & Outsourcing		
2.2	Difference between Contract & Outsourcing		
2.3	Jobs given on Contract by Housekeeping		
2.4	Advantages and Disadvantages of Contracts		
2.5	Pricing a Contract		
2.6	Types of Outsourced Services: Laundry, Pest Control, Flower Arrangements, Horticulture, Linen		
2.7	Advantages and Disadvantages of Outsourcing		
Chapter 3	LINEN AND UNIFORM ROOM MANAGEMENT	11	18
3.1	Layout of Linen Room and Uniform Room		
3.2	Duties and Responsibilities of Linen room and Uniform Room Staff		
3.3	Classification and Selection of Linen		
3.4	Standard Sizes of Bedroom linen and Bathroom linen		
3.5	Par stock and inventory: Meaning, Concept & Importance		
3.6	Linen Control and Discard Management		
3.7	Linen Exchange Procedure		

3.8	Issuing and Exchange of Uniforms		
3.9	Storage, Repairing and Mending of Uniforms		
Chapter 4	LAUNDRY OPERATIONS	11	18
4.1	Types of Laundries: On Premises Laundry (OPL), Commercial – Laundromats & Coin Laundry		
4.2	Organizational Hierarchy of Laundry		
4.3	Duties and Responsibilities of Laundry Staff		
4.4	Difference between OPL and Contract Laundry		
4.5	Layout of a Laundry		
4.6	Laundry Equipment: Types and Uses		
4.7	Laundry Process: Hotel Linen, Guest Laundry (Valet service)		
4.8	Stain Removal: Identification of stains, Points to be considered while treating the stains		
4.9	Dry Cleaning		
Chapter 5	FLOWER ARRANGEMENT	10	16
5.1	Concept, Importance and Principles of Flower Arrangement		
5.2	Conditioning of Plant Materials		
5.3	Tools, Equipment & Accessories		
5.4	Types / Schools of Flower Arrangement		
5.5	Different Shapes of Flower Arrangements: For specific areas like Public areas and Guest rooms		
5.6	Fresh & Exotic Flowers and Foliage		
5.7	Dry Flowers and Foliage		
5.8	Ikebana: Meaning & Types		
Chapter 6	FLOOR PANTRY MANAGEMENT	06	10
6.1	Concept and Meaning of Floor Pantry		
6.2	Layout of Floor Pantry		
6.3	Functions of Floor Pantry		
6.4	Room Supplies and Amenities: Supplies, amenities & consumption formats		
Chapter 7	PEST CONTROL	06	10
7.1	Definition of Pest		
7.2	Goals of Pest Control		
7.3	Types of Pests		
7.4	Prevention and Control Measures – Rodents, Flies & Mosquitos, Cockroaches, Bed Bugs, Carpet Beetles, Silverfish, Ants, Termites, Lizards		
	Total	60	100

Note:

Glossary: Students should be familiar with the glossary of terms pertaining to above mentioned topics.

Assignments: Any FOUR assignments to be submitted by students by the end of the semester.

Sr. No.	Assignment Topic	Assignment Type	Reference Chapter	Expected learning outcome with reference CO number
1	Inspect the areas in your college and prepare a Checklist for the same	Chart Presentation	Chapter 1	Students will develop inspection skills and create effective checklists to ensure cleanliness, safety, and operational standards CO 1
2	Presentation on Advantages, Limitations and Pricing Method for any one Contract or Outsourced service from Housekeeping (Group Activity)	Chart or PPT Presentation	Chapter 2	Students will understand benefits, challenges, and pricing strategies for a specific outsourced housekeeping service CO 2
3	Prepare a model of (Any 1) a) Linen and Uniform Exchange Room b) Laundry Section c) Floor Pantry	3D model preparation and presentation	Chapter 3 Chapter 4 Chapter 6	Students will understand layout, equipment, and operations of selected area, enhancing practical knowledge and management skills CO 3, CO 4 & CO 6
4	Prepare laundry visit report	Visit to commercial or OPL laundry and submission of a report	Chapter 4	Students will understand laundry operations, equipment usage, workflow, and hygiene practices through observation and detailed reporting CO 4
5	Presentation on exotic flowers, foliage and accessories used for making a flower arrangement	Live or PPT presentation	Chapter 5	Students will understand and identify exotic flowers, foliage, and accessories used creatively in professional flower arrangement presentations CO 5
6	Presentation on Prevention and Control Measures for any two pests commonly found in Hotels (Group Assignment)	Chart or PPT Presentation	Chapter 7	Students will understand prevention & control methods for managing common hotel pests effectively CO 7

References:

1. Hotel Housekeeping and Operations by G Raghubalan, Smritee Raghubalan.
2. Housekeeping Training Manual by Sudhir Andrews.
3. Managing Housekeeping Operations by Aleta Nitchke & William Frye of American Hotel & Lodging Educational Institute.
4. Hotel, Hostel & Hospital Housekeeping by Brenscon & Lanox.
5. Professional Management of Housekeeping Operations by Thomas J A Jones.
6. Hotel Housekeeping by Malini Singh.

Subject:	Rooms Division III PART 1 PRACTICAL (HOUSEKEEPING)		
Subject Code:	HS 203 (P1) P	Vertical:	Major Core MJP
Subject Credits:	02	Hours per week:	04
Semester:	III		

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination (Performance in the Practical Exams)	Total Marks
15	35	50

Course Outcomes:

- CO 1: Discuss housekeeping operations and room upkeep.
 CO 2: Understand laundry operations and linen management.
 CO 3: Develop skills in guest services and valet training.
 CO 4: Develop aesthetics and presentation skills required for flower arrangements.

Practicals:

Minimum **15 Individual Practicals** to be conducted during the semester

1. Prepare and use Room Check-list / Inspection List
2. Prepare and use Public Area Check-list
3. Do's and Don'ts while cleaning Health Club & Spa
4. Par Stock Calculation of Room Linen (with OPL)
 - Resort of 100 Rooms
 - Business Hotel with 50 Twin Rooms and 50 Double Rooms
5. Inventory Calculation
 - Resort of 100 Rooms
 - Business Hotel with 50 Twin Rooms and 50 Double Rooms
6. Stitches and Mending (Hemming, Button-Button Hole, Hook-Eye)
7. Identification & Removal of Stains
 - Tea / Coffee / Juice
 - Red Wine
 - Ink
8. Identification & Removal of Stains
 - Gravy / Oil / Grease
 - Lipstick
 - Mud
9. Laundry Procedure
 - Soiled linen collection and sorting
 - Spot cleaning
 - Washing / Dry cleaning – Bluing and Starching
 - Ironing and folding
10. Role Play on Valet Service
11. Demonstration on various Flower Arrangements
 - Round shape
 - Oval shape
 - Square shape
 - Crescent shape
 - Fan shape

- Ikebana
 - 12. Student presentation on various Flower Arrangements (**2 Practicals**)
 - 13. Daily Consumption Sheet of Room Supplies and Amenities (prepare and use Requisition Slip for Room Supplies and Amenities)
 - 14. Briefing and demonstration on Pest Control
-

Subject: Rooms Division III PART 2 THEORY (FRONT OFFICE)

Subject Code: HS 203 (P2) T **Vertical:** Major Core MJ

Subject Credits: 04 **Hours per week:** 04

Semester: III

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination	Total Marks
30	70	100

Course Outcomes:

- CO 1: Demonstrate operational knowledge of Front Office procedures during a guest's stay.
 CO 2: Demonstrate operational knowledge of Front Office procedures during departure stage.
 CO 3: Understand various terminologies and formats associated with Front Office accounting.
 CO 4: Apply various methods of payment and maintain Front Office accounts efficiently.
 CO 5: Assess hotel performance with the help of various performance indicators.
 CO 6: Interpret and prepare various reports used in Front Office department.
 CO 7: Discover current trends and technologies in Front Office operations.

		Hours	Marks
Chapter 1	FRONT OFFICE ACTIVITIES DURING GUEST STAY	06	12
1.1	Procedure for Room Change: Live move and dead move		
1.2	Safe Deposit Locker Procedure		
1.3	Guest Information Services - At Your Service / Service Express, Message handling, Wake up calls		
1.4	Satisfaction Tracking System (GSTS - Guest Service Tracking System)		
1.5	Paging of Guests		
Chapter 2	FRONT OFFICE ACTIVITIES DURING GUEST DEPARTURE & POST DEPARTURE	10	15
2.1	Departure Procedure: Notification and Luggage handling		
2.2	Group Checkouts		
2.3	Express Checkouts		
2.4	Early and Late Checkouts and Late charges		
2.5	Left Luggage Handling		
2.6	Guest Feedback		
2.7	Skipper and Black Listed Guests: Reporting & Handling procedures		
2.8	Post Departure Courtesy Services: Airport & Transfers, Courtesy Calls, Feedback		
Chapter 3	FRONT OFFICE ACCOUNTING	12	18
3.1	Accounting Fundamentals: Types of Accounts – Visitor's Tabular Ledger (VTL), Guest Weekly Bill, Folios, Vouchers		
3.2	Guest Ledger & City Ledger		
3.3	Front Office Accounting Cycle: Creation, maintenance and settlement of accounts, Control of cash and credit		
3.4	Credit Control Measures: Pre-Authorization, Advance		

3.5	Payments, Floor Limit, House Limit		
3.6	Credit Monitoring: High Balance Report		
	Cash Sheet: Shortage, Coverage and Due back		
Chapter 4	METHODS OF PAYMENT	10	15
4.1	Settlement of Bills		
4.2	Cash Settlement: Indian & Foreign Currency		
4.3	Foreign Currency: Exchange Procedure and Encashment Certificate		
4.4	Credit Settlement: Credit Card, Travel Agent Voucher, Bill to Company (BTC) letter		
4.5	Other Methods of Payment: Debit Card, UPI Transactions, NEFT/RTGS, Travelers' Cheque, Charge Voucher, Loyalty & other Vouchers		
Chapter 5	EVALUATING HOTEL PERFORMANCE	08	14
5.1	Methods of Measuring Hotel Performance: Occupancy Ratio Average Daily Rate (ADR) Average Rate Per Guest (ARG) Revenue Per Available Room (RevPAR) Gross Operating Profit Per Available Room (GOPPAR) Market Share Index		
Chapter 6	REPORTS AT FRONT OFFICE	08	14
6.1	Daily Report: Format and application		
6.2	Revenue Report: Format and application		
6.3	Discrepancy Report: Format and application		
6.4	No Show Report: Format and application		
6.5	Cancellation Report: Format and application		
6.6	Understay Report: Format and application		
6.7	Overstay Report: Format and application		
6.8	Stayover Report: Format and application		
Chapter 7	CURRENT TRENDS IN FRONT OFFICE	06	12
7.1	Contactless Check In & Check Out – Digital / Mobile		
7.2	Use of Mobile Apps for Personalized Service Delivery		
7.3	Self-Service Technologies (Self Check-in Kiosk)		
7.4	Internet of Things (IoT) at Front Office: Smart Room Integration		
7.5	Use of AI and Automation at Front Office		
	Total	60	100

Note:

Glossary: Students should be familiar with the glossary of terms pertaining to above mentioned topics.

Assignments: Any FOUR assignments to be submitted by students by the end of the semester.

Sr. No.	Assignment Topic	Assignment Type	Reference Chapter	Expected learning outcome with reference CO number
1	Present SOPs for – (Any 2) <ul style="list-style-type: none"> Room change procedure (live and dead move) Safe deposit locker procedure Wake-up call procedure Paging procedure 	Chart or PPT Presentation	Chapter 1	Students will learn to prepare and present professional SOPs, enhancing their understanding of standard procedures CO 1
2	Post Departure Courtesy Services and their impact for Luxury Hotels	Written assignment	Chapter 2	Students will learn about the post departure courtesy services and their impact for luxury hotels CO 2
3	Prepare report/presentation on Credit Monitoring & Control Measures practices followed by hotels	Written assignment or Presentation	Chapter 3	Students will learn about the credit monitoring & control measures practices followed by hotels CO 3
4	Prepare a Currency Conversion Chart with Foreign Exchange Procedure	Chart Presentation	Chapter 4	Students will understand currency conversion, exchange rates, and procedures CO 4
5	Case Study on comparative analysis factoring in ADR, RevPAR & GOPPAR for 2 or more hotels in an area	Case Study Report presentation	Chapter 5	Students will be able to understand the application of performance indicators CO 5
6	Prepare and present a Discrepancy Report – by comparing the Physical Status Report and Room Occupancy Report (Use hypothetical data)	Chart Presentation	Chapter 6	Students will learn to identify and report room discrepancies by comparing physical status and occupancy data using hypothetical case scenarios CO 6
7	Prepare and present information on any one current trend in front office	PPT Presentation	Chapter 7	Students will research, analyze, and effectively present a current front office trend CO 7

References:

1. Front Office Management – S. K. Bhatnagar.
2. Hotel Front Office Training Manual by Sudhir Andrews.
3. Principles of Hotel Front Office Operations by Sue Baker, P. Bradley, J. Huyton.
4. Hotel Front Office Operations and Management by Jatashankar R. Tewari.
5. Hotel Front Office Management by James A Bardi.
6. Check in Check out: Managing Hotel Operations by Gary Vallen, Jerome Vallen.
7. Managing Front Office Operations by Michael Kasavana.

Subject: Rooms Division III PART 2 PRACTICAL (FRONT OFFICE)

Subject Code: HS 203 (P2) P **Vertical:** Major Core MJP

Subject Credits: 02 **Hours per week:** 04

Semester: III

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination (Performance in the Practical Exams)	Total Marks
15	35	50

Course Outcomes:

- CO 1: Demonstrate professional skills in handling guest interactions through role plays and simulations in various guest stages like room change, paging guest, etc.
- CO 2: Outline key front office procedures related to guest departure such as express and group check-out.
- CO 3: Apply knowledge of front office accounting by performing various bill settlement methods & generating folios, vouchers and reports.

Practicals:

Minimum **15 Individual Practicals** to be conducted during the semester.

1. Role play on Room change procedure
 2. Message handling & Wake up calls
 3. Paging process for the Guest – Traditional and Current
 4. Departure procedure along with notification
 5. Express checkout & Group checkout procedure
 6. Early/Late Check-out and Late Charges procedure
 7. Left Luggage Handling Procedure
 8. Calculation of Visitor's Tabular Ledger (VTL)
 9. Calculation of Guest Weekly Bill (GWB)
 10. Folios maintained at Front Office
 11. Vouchers maintained at Front Office
 12. Bill settlement procedure with cash (Indian currency), NEFT/RTGS, Debit card, UPI transactions
 13. Bill settlement procedure with Travelers' cheque, Foreign currency and Foreign currency encashment certificate
 14. Credit settlement (Credit card, Bill to Company, City Ledger)
 15. Reports generated at Front Office
-

Subject: Food Hygiene & Safety

Subject Code: HS 204 A

Vertical: GE/OE

Subject Credits: 02

Hours per week: 02

Semester: III

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination	Total Marks
15	35	50

Course Outcomes:

CO 1: Identify the importance of food hygiene and understand food poisoning, allergens and food adulteration

CO 2: Describe basics of micro-organisms and their role in food hygiene

CO 3: Outline food preservation and HACCP practices in kitchen

CO 4: Understand kitchen fires & accidents and their control

CO 5: Discuss food laws in India & their application

		Hours	Marks
Chapter 1	INTRODUCTION TO FOOD HYGIENE & SAFETY	5	8
1.1	Definition and Importance of Food Hygiene and Safety		
1.2	The Key Elements to Maintain Food Hygiene & the risks of not practicing them: Personal Hygiene, Food Storage and Handling, Cleaning and Sanitizing, Pest Control		
1.3	Introduction to Food Poisoning and Allergens		
1.4	Introduction to Food Adulteration		
Chapter 2	BASICS OF MICRO-ORGANISMS AND THEIR GROWTH	7	12
2.1	Introduction to Micro-Organisms & its Types: Viruses, Bacteria, Yeasts, Moulds		
2.2	Bacteria in Food – Useful bacteria, Harmful bacteria		
2.3	Factors Affecting Microbial Growth: Nutrients (food), Temperature, Water, Oxygen, Acidity/Alkalinity (pH level), Time		
2.4	Food Spoilage: Physical, Chemical & Microbial, Cross-contamination		
Chapter 3	UNDERSTANDING FOOD PRESERVATION & FOOD SAFETY ELEMENTS	7	12
3.1	Types of Food Preservation: Chemical, Sugar, Salting, Dehydration, Smoking, Canning, Sterilizing, Heat & Cold Methods		
3.2	Food Safety vs. Food Hygiene		
3.3	Food Safety Elements: Microbiological Safety, Chemical Safety, Physical Safety		
3.4	HACCP (Hazard Analysis and Critical Control Points): Background, Meaning, Why it is required in catering establishments, Principles of HACCP, Implementing HACCP in catering establishments		

Chapter 4	KITCHEN HAZARDS & FIRE SAFETY	6	10
4.1	Kitchen Hazards & Control: Burns and Scalds, Cuts, Slips & Falls, Electric Shock		
4.2	Kitchen Fire Safety and its Control: Causes of Fire in the Kitchen, Types of Kitchen Fire, Kitchen Fire Safety Standards, Methods and Types of Fire Extinguishers		
Chapter 5	FOOD LAWS IN INDIA	5	8
5.1	Food Safety & Standard (FSS) Act 2006 Introduction, Salient Features, International Food Safety Regulations, Food Safety & Standards Authority of India (FSSAI)		
5.2	Introduction to the AGMARK Standard		
5.3	Key Areas Under Food Safety & Standard Act Packaging & Labelling, Food Licenses & Registration, Penalties		
5.4	Introduction to other Food Safety Laws & Standards ISO standards for Food - ISO- 22000, Food Safety Modernization Act (FSMA), Codex Alimentarius, Global Food Safety Initiative (GFSI) & FSSC 22000		
	Total	30	50

Note:

Glossary: Students should be familiar with the glossary of terms pertaining to above mentioned topics.

Assignments: Any TWO assignments to be submitted by students by the end of the semester.

Sr. No	Assignment Topic	Assignment Type	Reference Chapter	Expected Learning Outcome with reference CO number
1	Write best practices to maintain food hygiene for any 2 from following: Personal Hygiene, Food Storage and Handling, Cleaning and Sanitizing, Pest Control	Written assignment with pictures	Chapter 1	Understanding basic hygiene practices related to food safety CO 1
2	Write a comparison report on Harmful and Beneficial Bacteria	Submission in written form	Chapter 2	Introducing common foodborne bacteria and their effects CO 2
3	Perform a live food preservation session by usage of Salting or Drying method and prepare a report on changes noticed during the process	Submission report in written form with pictures	Chapter 3	Understand the procedure of food preservation CO 3
4	Write a report on Identifying and Preventing Kitchen Hazards	Submission in written form or PPT	Chapter 4	Understand common kitchen hazards, their potential consequences, and strategies to prevent accidents, ensuring a safe cooking environment CO 4

5	Prepare a comparison report on different types of packaging and labeling used for similar products.	Written assignment or PPT along with pictures and/or sample packages	Chapter 5	Understand a compare how the packaging and labeling requirement changes along with other aspects like product shelf life, price, etc for similar products CO 5
6	Observe Food Safety at your Home Kitchen and write a brief report	Written submission with observation report	Overview of the all the chapters	Practical knowledge of food safety application in real setting

References:**Case Studies:**

1. Maggi Noodle Controversy : Company – Nestle India (2015)
2. Dairy Milk Chocolate Controversy : Company – Cadbury (2003)

Books:

1. Food Hygiene and Sanitation by Sunetra Roday.
2. Food Safety and Hygiene by Lucia E Anelich.
3. Food Microbiology by William C Frazier & Dennis Westoff.
4. Fundamentals of Fire Risk Assessment Calculations by Dr. Gopal C Misra.

Online:

1. Manual for Food Safety Officers, Food Safety and Standards Authority of India
https://fssai.gov.in/upload/knowledge_hub/16230060e42ededcc7dFSO_Manual_05_07_2021_.pdf
2. Food Safety Standards Authority of India: <https://fssai.gov.in/>
3. Food Safety Act: <https://fssai.gov.in/index.php?page=act-rules-regulations.php>
4. Rules: <https://fssai.gov.in/cms/food-safety-and-standards-rules--2011.php>
5. Regulations: <https://fssai.gov.in/cms/food-safety-and-standards-regulations.php>
6. Food Safety Compliance System: <https://fosc.fssai.gov.in/>

Subject: MICE Management**Subject Code: HS 204 B****Vertical: GE/OE****Subject Credits: 02****Hours per week: 02****Semester: III**

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination	Total Marks
15	35	50

Course Outcomes:

CO 1: Understand the scope, structure, and importance of MICE (Meetings, Incentives, Conferences/Conventions, Exhibitions/Expositions).

CO 2: Discuss key components of planning and logistics in MICE.

CO 3: Describe marketing and promotional strategies for MICE.

CO 4: Explore the role of technology, innovation and sustainability in MICE.

CO 5: Outline the importance & types of MICE Tourism.

		Hours	Marks
Chapter 1	INTRODUCTION TO MICE (Meetings, Incentives, Conferences / Conventions, Exhibitions / Expositions)	05	08
1.1	Meaning, Scope and Importance of MICE		
1.2	Types of MICE Events: Meetings, Incentives, Conferences / Conventions, Exhibitions / Expositions		
1.3	Key Stakeholders: Organizers, Sponsors, Exhibitors, Attendees and Technology partners		
1.4	Emerging Trends in MICE		
1.5	Career Opportunities in MICE		
Chapter 2	KEY COMPONENTS OF PLANNING & LOGISTICS IN MICE	08	12
2.1	Event: Objectives and Goals		
2.2	Venue Selection & Management: Accommodation, Transport, Catering Arrangements Audiovisual & Technical Requirements Activities & Excursion Planning Audience Management Safety & Security		
2.3	Budgeting & Financial Planning		
Chapter 3	MARKETING OF MICE EVENTS	06	10
3.1	Marketing Objectives and Strategies: (4 Ps of Marketing – Product, Place, Price and Promotion)		
3.2	Digital Marketing Strategies: Social Media, Email Marketing, Content Marketing, Search Engine Optimization (SEO)		
3.3	Sponsorship & Partnership Management: Finding Suitable Sponsors/Partners, Submission & Acceptance Event Proposal		
3.4	Event Promotion: Pre-Event & Post Event Promotion		

Chapter 4	TECHNOLOGY, INNOVATION & SUSTAINABILITY IN MICE	06	10
4.1	Event Management Softwares (e.g. Eventbrite, Cvent, Zoho Backstage, Bitrix24, Whova, Eventtia, and EventTitans)		
4.2	Mobile Applications used in Event Planning (e.g. Eventbrite, Cvent, Whova, Eventzilla, and Brella)		
4.3	Virtual & Hybrid Events		
4.4	Use of AI in Event Planning and Promotion		
4.5	Sustainable Event Practices: Green Events and Zero Waste		
4.6	Impact on Environment: Positive and Negative Impact, Social Impact, Government Compliances		
Chapter 5	MICE TOURISM	05	10
5.1	Importance of MICE Tourism		
5.2	Types of MICE Tourism – Political Events, Sports Events, Cultural Events, SMERF (Social, Military, Educational, Religious, and Fraternal groups), Medical Tourism, Business Events, Heritage Tourism, Agro Tourism, Educational Tourism		
5.3	MICE Travelers – Roles & Responsibilities		
5.4	MICE Packages – Inbound and Outbound Packages – Individual, Group and Corporates		
	Total	30	50

Note:

Glossary: Students should be familiar with the glossary of terms pertaining to above mentioned topics.

Assignments: Any TWO assignments to be submitted by students by the end of the semester.

Sr. No.	Assignment Topic	Assignment Type	Reference Chapter	Expected learning outcome with reference CO number
1	Explain the role of Key Stakeholders in MICE industry	Submission in written assignment form	Chapter 1	Understanding the role of Key Stakeholders in MICE industry CO1
2	Showcase the usage of the key components of planning for MICE	Submission as PPT, or Chart	Chapter 2	Being able to use the key components of planning for a mock MICE event CO2
3	Create and promote any event by using any marketing tools	Chart / Pamphlets / Online Social Media Advertising	Chapter 3	Apply marketing strategies (4 Ps) and digital tools (SEO, social media) to promote a MICE event effectively CO3
4	Describe with the help of case study - Virtual & Hybrid Events	Case Study / Research Study	Chapter 4	Analyze the role of technology in modern MICE events and evaluate the benefits/drawbacks of virtual/hybrid formats CO4
5	List and explain any 10 major MICE tourism destinations and their features.	PPT / Chart	Chapter 5	Identify key MICE destinations, their unique offerings, and their appeal to different traveler segments CO5

References:

1. Planning and Management of Meetings, Expositions, Events and Conventions By George G. Fenich
 2. Introduction to Hospitality Management by Dr. John R. Walker, 2nd Edition, Pearson Education Publication.
 3. Management of Event Operations by Julia Tum, Philippa Norton, Taylor & Francis Publication.
 4. Event Management and Sustainability by Razaq Raj, James Musgrave, CABI Publication.
 5. Sustainable Event Management - A Practical Guide by Meegan Jones, Taylor & Francis Publication.
 6. MICE Tourism: Concepts and Cases by Dr. Vijayakumar B., Himalaya Publishing House.
 7. Meetings, Incentives, Conventions and Exhibitions (MICE) by Rajesh R., Kanishka Publishers.
 8. MICE Management by Dr. J. Shantha Kumari, Neha Publishers & Distributors.
 9. MICE Tourism and Sustainable Development by Dr. R. Ganesan, Discovery Publishing House Pvt. Ltd.
 10. Convention Tourism: International and Indian Perspectives by K. K. Sharma, Sarup Book Publishers.
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Subject: Heritage Hotels of India**Subject Code: HS 205****Vertical: IKS****Subject Credits: 02****Hours per week: 02****Semester: III**

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination	Total Marks
15	35	50

Course Outcomes:

CO 1: Identify the role of heritage tourism.

CO 2: Comprehend the gradation of heritage hotels.

CO 3: Recognize the state wise heritage hotels in India.

CO 4: Interpret the impact of tourism and heritage hotels on development of community.

		Hours	Marks
Chapter 1	INTRODUCTION TO HERITAGE TOURISM	04	06
1.1	Definition of Heritage Tourism as per Ministry of Tourism		
1.2	Role of Heritage Tourism		
1.3	Growth and Popularity of Heritage Tourism		
1.4	Role of Heritage Hotels in Tourism		
Chapter 2	HISTORY & CLASSIFICATION OF HERITAGE HOTELS	06	12
2.1	Definition of Heritage Hotels as per Ministry of Tourism		
2.2	History of Heritage Hotels in India		
2.3	Eligibility of Heritage Hotels in India		
2.4	Classification of Heritage Hotels: Heritage, Heritage Classic, Heritage Grand		
2.5	Special Features of Heritage Hotels		
Chapter 3	HERITAGE HOTELS OF INDIA	10	18
3.1	Indian Heritage Hotels Association: Association Duties and Obligations, Association Founding Members		
3.2	State-wise listing of prominent Heritage Hotels: Rajasthan, Gujarat, Maharashtra, Madhya Pradesh, Goa, Kerala Tamil Nadu, Karnataka		
3.3	Differential Services offered by the Heritage Hotel: Accommodation - Décor and Ambience, Food & Beverage, Entertainment and Recreational facilities (Engagement of Local Community)		
Chapter 4	TOURISM IMPACTS	10	14
4.1	Positive and Negative Impacts of Tourism and Hotel Policies on the Heritage of India		
4.2	Sustainable Tourism Practices in Heritage Hotels: Energy Efficiency, Recycling of Waste Material, Eco- Friendly Products		
4.3	Role of Heritage Hotels in the Growth of Local		

4.4	Community Public-Private Partnerships (PPP) in Heritage Hospitality: Government Schemes - HRIDAY, PRASHAD, Adopt a Heritage Role of Private Hotel Chains in Preserving & Promoting India's Rich Heritage - (Taj, ITC, Welcome Heritage) Benefits & Risks of PPP		
Total		30	50

Note:

Glossary: Students should be familiar with the glossary of terms pertaining to above mentioned topics.

Assignments: Any TWO assignments to be submitted by students by the end of the semester.

Sr. No.	Assignment Topic	Assignment Type	Reference Chapter	Expected learning outcome with reference CO number
1	Presentation on classification of Heritage Hotels with examples.	PPT, Presentation, Video	Chapter 2	Students will understand how heritage hotels are categorized, their characteristics and their importance within hospitality industry CO 1, CO 2
2	Select one of the listed States as mentioned in syllabus and prepare a presentation on the Heritage Hotels	PPT, Presentation, Video	Chapter 3	Students will gain knowledge of heritage hotels within a specific Indian state and appreciate the importance of cultural heritage presentation CO 3
3	Select a Heritage Hotel of your choice and explain how government initiatives are helping in the promotion of the hotel	Research, Hotel Survey	Chapter 4	Students will understand how government initiatives influence the promotion and sustainability of Heritage Hotel CO 4

References:

1. Indian Heritage Hotels – Legacy of Splendour by Anuradha Kapoor.
2. Impact of Heritage Hotels in India – A Rural Perspective by Alope Vatsyayan.
3. Glorious Hotels of India by Cosmo Brockway & Harriet Compston.
4. Hotel Housekeeping Operations and Management by Smritee Raghubalan.
5. Challenges faced in Heritage Management in India and Policy Imperatives by NITI Aayog.
6. https://tourism.gov.in/sites/default/files/2020-02/05182012022241_0.pdf
7. <https://tourism.gov.in/sites/default/files/2020-04/HERITAGE%20HOTEL.pdf>
8. https://www.fhrai.com/document/mot_guidelines/Guidelines_for_Classification_ofHeritage_Hotels.pdf
9. <https://tourism.gov.in/prashad-scheme>
10. <https://mohua.gov.in/upload/uploadfiles/files/GuidelinesHRIDAY.pdf>
11. <https://tourism.gov.in/sites/default/files/202008/adopt%20a%20Heritage%20Project%20Guidelines.pdf>

Subject: Hindi MIL I

Subject Code: AEC 231 HIN

Vertical: MIL

Subject Credits: 02

Hours per week: 02

Semester: III

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination	Total Marks
15	35	50

Subject: Marathi MIL II

Subject Code: AEC 232 MAR

Vertical: MIL

Subject Credits: 02

Hours per week: 02

Semester: III

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination	Total Marks
15	35	50

Subject: Food Production III (THEORY)**Subject Code: HS 241 T****Vertical: Minor MN****Subject Credits: 02****Hours per week: 02****Semester: III**

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination	Total Marks
15	35	50

Course Outcomes:

- CO 1: Understand of the various sectors of the catering industry and analyze the importance of menu planning, volume forecasting, and yield management
- CO 2: Analyze the importance of menu planning, volume forecasting, and yield management in achieving operational efficiency and customer satisfaction
- CO 3: Investigate the diversity of Indian regional cooking styles, techniques & cultures influences
- CO 4: Identify healthy and functional foods, sustainable practices, innovative menu planning to promote wellness and reduce waste
- CO 5: Analyze the application of softwares in food businesses to optimize efficiency

		Hours	Marks
Chapter 1	INTRODUCTION TO QUANTITY FOOD PRODUCTION & YIELD MANAGEMENT IN KITCHEN	05	10
1.1	Introduction to Quantity Food Production: Operational Efficiency, Sustainability, Bulk Cooking Practices		
1.2	Sectors of Catering Industry: Industrial Catering, Institutional Catering (Hospitals & Schools), Banqueting & Welfare Catering		
1.3	Volume Forecasting: Definition, Role In Kitchen Planning, Budgeting & Efficiency (Inventory Management, Production Management, Logistics)		
1.4	Types of Budgets in Kitchen: Sales Budget, Production Budget, Material Budget, Labor Budget, Overhead Budget		
1.5	Yield Management: Definition, Importance, Factors Affecting Yield, Yield Percentage Calculation		
Chapter 2	MENU PLANNING & KITCHEN MANAGEMENT FOR LARGE SCALE OPERATIONS	03	05
2.1	Principles Of Menu Planning: Aesthetics, Functionality, Psychology		
2.2	Emerging Trends: Organic, Vegan, Gluten-Free, Allergen-Free, Keto, Low Carb, Low Sodium, Kosher		
2.3	Kitchen Layout For Quantity Kitchen: Types Of Kitchens - Commercial vs Residential, Kitchen Design, Equipment Placement, Safety, Accessibility, Efficiency		

Chapter 3	INDIAN REGIONAL COOKING	10	15
3.1	Regional Cuisines: History, Characteristics, Regional Specialties & Famous Dishes, Specialty Equipment, Religious & Foreign Influence for regions as mentioned below: North (Jammu & Kashmir, Punjab, Uttar Pradesh, Himachal Pradesh) South (Karnataka, Andhra Pradesh, Tamil Nadu, Kerala) East (West Bengal, Bihar, Arunachal Pradesh, Assam, Manipur, Meghalaya) West (Madhya Pradesh, Rajasthan, Gujarat, Maharashtra, Goa)		
3.2	Specialty Cooking Methods (Dum, Dhungar, Tandoor, Bhuna, Handi, Paturi, Sukha, Thalippu, Chulha, Bhapa, Fermentation revival)		
Chapter 4	HEALTHY & FUNCTIONAL FOODS	07	10
4.1	Healthy Foods: Definition, Importance of Nutrition in Menu Planning, Role of Balanced Meals in Customer Wellness & Satisfaction		
4.2	Functional Foods: Definition, Types & Health Benefit		
4.3	Role in Preventing Lifestyle Diseases: High Blood Pressure (BP), High Cholesterol, Diabetes, Obesity		
4.4	Food Waste Management & Zero-Waste Kitchen: Impact of Food Waste Globally, Nose-To-Tail, Root-To-Stem, Composting, Repurposing Leftovers, and Donation Practices		
4.5	Hospitality Trends: Wellness Tourism & Health-Conscious Dining, Rise of Functional Cafes, Ayurvedic Food, Bio Hacking Meals, Detox Retreats and Diet-Specific Offerings, Wellness Menus, Spa Cuisine		
Chapter 5	COMPUTER SOFTWARE AND INFORMATION TECHNOLOGY (IT) APPLICATIONS	05	10
5.1	Introduction to Computer Software in Food Production		
5.2	Recipe Management Software: Features, Functions & Importance		
5.3	Inventory Management Software: Importance of Inventory Control in Food Production, Real-Time Inventory Tracking, Integration with Purchase and Production Modules		
5.4	Point-of-Sale (POS) Integration with Food Production Software: Role of POS Systems in Food Business, Integration of POS with Inventory and Production Software, Advantages in Order Management and Reporting		
5.5	Mobile Applications and E-Commerce for Food Businesses: Importance of Mobile Apps in Food Delivery and Customer Interaction, Digital Payment Solutions, Role of E-Commerce Platforms in Food Business Expansion		
Total		30	50

Note:

Glossary: Students should be familiar with the glossary of terms pertaining to above mentioned topics.

Assignments: Any TWO assignments to be submitted by students by the end of the semester.

Sr. No.	Assignment Topic	Assignment Type	Reference Chapter	Expected learning outcome with reference CO number
1	Sustainable Practices in Large-Scale Catering	Field visit, Report & Presentation	Chapter 1	Student will learn to analyze how a hotel or institution incorporates sustainability in bulk food production CO 1
2	Menu Planning for an F&B Outlet	Chart Presentation or Online Menu	Chapter 2	Student will develop a balanced, cost-effective menu with emerging trends as discussed in the chapter CO 2
3	Regional Specialties & Famous Dishes	Individual or Group Presentation	Chapter 3	Students will give a presentation on regional specialties & famous dishes of any state as identified CO 3
4	Healthy and Functional Menu Planning	Presentation of menu with layout & brief description	Chapter 4	Students will develop a healthy and functional menu that includes starters, mains, & desserts. Usage of healthy & functional foods as well as alternative proteins CO 4
5	Comparison between manual and automated recipe and inventory management	Written assignment	Chapter 5	Students will prepare a comparison chart between the olden day methods and current and future practices highlighting the benefits and drawbacks CO 5

References:

1. Quantity Food Production and Indian Cuisine by Parvinder S. Bali.
2. Food Production Operations by Parvinder S. Bali.
3. Professional Cooking (Wiley) by Wayne Gisslen
4. Modern Cookery for Teaching and the Trade (Vol I & II) by Thangam E. Philip.
5. Menu Engineering: A Practical Guide to Menu Analysis by Michael Kasavana & Donald Smith.
6. Design and Layout of Foodservice Facilities by John C. Birchfield.
7. Catering Management by Mohini Sethi.
8. India: The Cookbook by Pushpesh Pant.
9. Prashad: Cooking with Indian Masters by J. Inder Singh (Jiggs) Kalra.
10. Indian Superfoods by Rujuta Diwekar.
11. Made in India: Cooked in Britain (Great International Perspective on Indian Home Cooking) by Meera Sodha.
12. Food Industry 4.0 – Charis M. Galanakis (Emerging Technologies in Food Industry Comprehensive coverage of IoT, AI, and automation in food).
13. E-Commerce in the Food Industry – Mehmet H. Bilgin (Covers digital sales, mobile apps, and payment systems).
14. Smart and Sustainable Food Technologies – Charis M. Galanakis (Focus on green IT, digital waste control, and sustainability).

Subject: Food Production III (PRACTICAL)**Subject Code: HS 241 P****Vertical: Minor MNP****Subject Credits: 02****Hours per week: 04****Semester: III**

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination (Performance in the Practical Exams)	Total Marks
15	35	50

Course Outcomes:

CO 1: Formulate industrial menu for large-scale food production.

CO 2: Discover regional flavors, cooking techniques, and nutritional balance.

CO 3: Understand food safety & budgeting and apply recipe standardization & cost control.

Practicals:

Teachers/Instructors may customize the menu based on student learning goals, availability of ingredients, and practical feasibility.

Please note, the regions and dishes listed below are for reference and suggestions only.

Practical No.	Category	Region	Menu
1	Industrial Menu	—	Meat Curry, Vegetable Pulao, Moong Dal Tadka, Boondi Raita, Gulab Jamun
2	Industrial Menu	—	Vegetable Kofta Curry, Jeera Rice, Toor Dal Fry, Cabbage Salad, Paratha, Fruit Custard
3	Indian Breakfast	—	Upma, Idli, Medu Vada, Coconut Chutney, Sambhar, Filter Coffee
4	Indian Breakfast	—	Poha, Assorted Parathas, Puri Bhaji, Masala Chai
5	Indian Regional Menu (North)	Jammu & Kashmir	Rogan Josh, Nadru Yakhni, Dum Aloo, Kashmiri Rajma, Saffron Pulao, Sheermal, Mujh Chetin, Anardana Chutney, Modur Pulao
6	Indian Regional Menu (North)	Punjab	Butter Chicken, Aloo Gobi, Dal Makhani, Vadiyan Pulao, Laccha Paratha, Sirke Vaala Pyaaz, Phirni
7	Indian Regional Menu (North)	Himachal Pradesh	Chha Gosht, Sepu Vadi, Teliya Mah Dal, Steamed Rice, Mandiyali Roti, Pickled Onion, Mittha
8	Indian Regional Menu (South)	Karnataka	Bisi Bele Bhat, Ragi Mudde with Sambar, Tovve, Akki Roti, Kosambari, Mysore Pak, Kayi Holige
9	Indian Regional Menu (South)	Tamil Nadu	Chettinad Chicken Curry, Beans Poriyal, Rassam, Steamed Rice, Appam, Payasam
10	Indian Regional Menu (South)	Kerala	Meen Curry, Avial, Parippu Curry, Red Rice, Kerala Parotta, Banana Chips, Ada Pradhaman
11	Indian Regional Menu (East)	West Bengal	Macher Jhol, Aloo Posto, Cholar Dal, Gobindobhog Rice, Luchi, Tomato Chutney, Mishti Doi
12	Indian Regional Menu (East)	Assam	Masoor Tenga, Xaak Bhaji, Mong Dal, Joha, Raw Papaya Chutney, Pitha
13	Indian Regional Menu (West)	Gujarat	Undhiyu, Dhokla, Gujarati Dal, Thepla, Shrikhand

14	Indian Regional Menu (West)	Goa	Prawn Curry, Tendli Bhaji, Toor Dal, Steamed Rice, Poi, Mango Pickle, Bebinca
15	Indian Regional Menu (West)	Maharashtra	Kolhapuri Chicken Curry, Bharli Vangi, Aamti, Masale Bhaat, Bajra/Jowar Bhakri, Puran Poli, Thecha, Koshimbir, Basundi

Note:

- 15 practicals should be planned for the semester.
 - All practicals are to be planned for bulk cooking.
 - Industrial menu consisting of meat / vegetable, rice, dal, accompaniment, bread & dessert – **02 Practical.**
 - Indian Breakfast Menu – **02 Practical.**
 - Indian regional menu (minimum two from each zone) consisting of meat, veg (dry / gravy), dal, rice, accompaniment, bread & dessert – **11 Practical.**
 - **North** (Jammu & Kashmir, Ladakh, Punjab, Uttar Pradesh, Himachal Pradesh, Uttarakhand).
 - **South** (Telangana, Karnataka, Andhra Pradesh, Tamil Nadu, Kerala).
 - **East** (West Bengal, Bihar, Orissa, Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura).
 - **West** (Madhya Pradesh, Rajasthan, Gujarat, Maharashtra, Goa).
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Subject: Food & Beverage Service III (THEORY)

Subject Code: HS 242 T **Vertical:** Minor MN

Subject Credits: 02 **Hours per week:** 02

Semester: III

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination	Total Marks
15	35	50

Course Outcomes:

- CO 1: Understand wine, key grape varieties, classification, and the stages of winemaking for still, sparkling, aromatized, and fortified wines
- CO 2: Discuss wine regions, key wines, and label laws from certain old & new world countries
- CO 3: Explain the ingredients, brewing process & types of beers & other fermented beverages
- CO 4: Identify various wine & spirit based aperitifs, common bitters and popular digestives
- CO 5: Identify bar tools and equipment, and perform key bartender and wine sommelier tasks

			Marks
Chapter 1	INTRODUCTION TO WINE		13
1.1	Fundamentals of Wine: Definitions and Overview		
1.2	Grape Varieties: Key International and Indigenous Grape Varieties, Characteristics and Flavor Profile		
1.3	Classification of Wine: Still, Sparkling, Aromatized and Fortified		
1.4	Stages of Wine making for Different Wine Types: Still, Sparkling, Aromatized, and Fortified Wines		
1.5	Principles of Pairing Wine		
Chapter 2	OLD & NEW WORLD WINES		10
2.1	Old World Wines France: Wine Regions: Bordeaux , Champagne Popular wines: Chablis, Moët & Chandon Italy: Wine Regions: Veneto ,Tuscany Popular wines: Chianti, Prosecco Spain: Wine Regions: Rioja, Ribera Popular wines: Cava, Sherry Germany: Wine Regions: Mosel, Rheingau Popular wines: Dr. Loosen, Robert Weil		
2.2	New World Wines South Africa: Wine Regions: Stellenbosch, Paarl Popular wines: Rubicon, Columella USA: Wine Regions: Napa Valley, Sonoma County Popular wines: Robert Mondavi, Opus One Australia: Wine Regions: Barossa Valley, Hunter Valley Popular wines: Penfolds, Jacob's Creek India: Wine Regions: Nashik, Bangalore		

	Popular wines: Sula Chenin Blanc, La Réserve		
Chapter 3	BEER & OTHER FERMENTED BEVERAGES		13
3.1	Introduction, Definition and History of Beer		
3.2	Ingredients and their Role: Water, Barley & other grains, Yeast, Sugar, Hops		
3.3	Steps in Beer Production		
3.4	Types of Beer: Ales, Lager, Porter, Stout, Bock		
3.5	National & International Brands of Beer		
3.6	Other Fermented Beverages: Cider, Perry, Mead, Sake, Soju, Toddy, Palm Wine		
Chapter 4	APERITIFS, BITTERS AND DIGESTIVES		06
4.1	Wine based Aperitifs: Vermouth, Lillet & Dubonnet		
4.2	Spirit based Aperitifs: Campari, Aperol & Pastis		
4.3	Bitters: Definition & Brands		
4.4	Digestives: Definition & Brands		
Chapter 5	BASICS OF BARTENDING	04	08
5.1	Equipments in Bar: Small & Large equipments		
5.2	Essential Skills Required: Bartender & Wine Sommelier		
5.3	Duties and Responsibilities: Bartender & Wine Sommelier		
5.4	Bar Permits: Per Day, Weekend		
Total		30	50

Note:

Glossary: Students should be familiar with the glossary of terms pertaining to above mentioned topics.

Assignments: Any TWO assignments to be submitted by students by the end of the semester.

Sr. No.	Assignment Topic	Assignment Type	Reference Chapter	Expected learning outcome with reference CO number
1	International and Indian grapes varieties	Presentation	Chapter 1	Student will be able to identify key International and Indian grape varieties CO 1
2	Wine Labels of key wines of Old & New World Wines	Presentation	Chapter 2	Students will present physical or copies of wine labels of the key wines as mentioned in the chapter CO 2
3	Conduct a market study of national and international beer brands	Research, Presentation	Chapter 3	Students will compare 2 Indian and 2 international beer brands with focus on their brewing styles, product ranges, marketing strategies, and customer base CO 3
4	Design a pre-dinner drinks menu for a fine dining restaurant. Include at least 2 aperitifs (1 wine-based, 1 spirit-based), 1 bitter and 2 digestives	Research, Presentation	Chapter 4	Students will have a deep understanding about aperitifs and digestives, and will be able to differentiate between the two CO 4

5	Prepare and submit a video of minimum 1 minute showing any aspect of the job of a bartender or wine sommelier	Video Presentation	Chapter 5	Students will showcase any aspect of the job performed by bartender or wine sommelier to gain better insight on duties & responsibilities (eg. Bar opening duties, communicating with a guest, etc.) CO 5
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References:

1. Food & Beverage Service by Dennis Lillicrap and John Cousins.
 2. Food & Beverage Service by R. Sinagaravelavan.
 3. Food & Beverage Service Training Manual by Sudhir Andrews, Tata McGraw Hill.
 4. Modern Restaurant Service by John Fuller.
 5. The Restaurant (from Concept to Operation) by Lipinski.
 6. Bar and Beverage Book by Chris Katsigris, Chris Thomas.
 7. Textbook of Food & Beverage Service by Anita Sharma, S. N. Bagchi.
 8. Textbook of Food & Beverage Service by Bobby George.
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Subject: Food & Beverage Service III (PRACTICAL)

Subject Code: HS 242 P **Vertical:** Minor MNP

Subject Credits: 02 **Hours per week:** 04

Semester: III

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination (Performance in the Practical Exams)	Total Marks
15	35	50

Course Outcomes:

- CO 1: Outline wine service tasks including order-taking and recommending wines.
- CO 2: Demonstrate professional wine service techniques for still & sparkling.
- CO 3: Develop food and wine pairing strategies based on regional cuisines and wine profiles, emphasizing harmonization principles and sensory compatibility.
- CO 4: Identify and describe various beer service equipment and correct procedures for order taking and service of beer.
- CO 5: Identify, maintain and set up bar equipment.

Practicals:

Minimum **15 Individual Practicals** to be conducted during the semester.

1. Identification of Wine Service Equipment (Wine Openers, Cork Extractor, Wine Chiller, Glassware, etc.)
 2. Making Of Fruit Wine (Litchi, Jamun, Pomegranate, Guava, Mango etc.)
 3. Taking Order For Wine
 4. Service Procedure of Still Wines
 5. Service Procedure Sparkling Wines
 6. Wine Tasting Techniques
 7. Food & Wine Pairing
 8. Plan 3/4/5 Course Indian Menu with Appropriate Wines (Wines from France, Spain, Germany)
 9. Identification of Beer Service Equipment (Beer Openers, Glasses)
 10. Procedure of Order Taking of Beer
 11. Service Procedure of Bottled Beer, Canned Beer
 12. Service Procedure of Other Fermented Beverages
 13. Service Procedure of Aperitifs & Bitters
 14. Identify Bar Equipment
 15. Care and Maintenance of Bar Equipment: Big and Small Equipment
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Subject: Rooms Division III (THEORY)**Subject Code: HS 243 T****Vertical:****Minor MN****Subject Credits: 02****Hours per week: 02****Semester: III**

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination	Total Marks
15	35	50

Course Outcomes:

CO 1: Outline the roles of a housekeeping supervisor & understand the concept of contracts.

CO 2: Explain the key concepts of linen, uniform room and laundry operations.

CO 3: Discover the concept of Flower Arrangement & various tools utilized.

CO 4: Interpret Front Office procedures during a guest's stay & departure.

CO 5: Apply various terminologies, formats, methods of payment & reports to maintain Front Office accounts efficiently.

		Hours	Marks
Chapter 1	HOUSEKEEPING SUPERVISION & CONTRACT CLEANING	05	08
1.1	Role of a Supervisor		
1.2	Functions of Supervisor: Guest Room Inspection		
1.3	Definition and Concept of Contracts		
1.4	Jobs Given on Contract by Housekeeping		
1.5	Advantages and Disadvantages of Contract Cleaning		
Chapter 2	LINEN, UNIFORM ROOM AND LAUNDRY	06	10
2.1	Layout of Linen Room and Uniform Room		
2.2	Classification and Selection of Linen		
2.3	Concept of PAR stock and Linen Inventory		
2.4	Discard Management		
2.5	Types of Laundries – On Premises Laundry (OPL), Commercial – Laundromats & Coin Laundry		
2.6	Advantages and Limitations of OPL and Contract Laundry		
2.7	Handling Guest Laundry - Valet Service		
Chapter 3	FLOWER ARRANGEMENT	05	08
3.1	Concept, Importance and Principles of Flower Arrangement		
3.2	Tools, Equipment and Accessories used in making of Flower Arrangement		
3.3	Exotic flowers and foliage used in Flower Arrangement		
Chapter 4	FRONT OFFICE ACTIVITIES DURING GUEST STAY AND GUEST DEPARTURE	06	10
4.1	Procedure for Room Change: Live Move and Dead Move		
4.2	Departure Procedure: Notification and Luggage Handling		
4.3	Group Checkouts & Express Check Outs		
4.4	Early and Late Checkouts and Late charges		
4.5	Post Departure Courtesy Services: Airport & Transfers, Courtesy Calls, Feedback		

Chapter 5	FRONT OFFICE ACCOUNTING & METHODS OF PAYMENT	08	14
5.1	Accounting Fundamentals: Types of Accounts – Visitor's Tabular Ledger (VTL), Guest Weekly Bill, Folios, Vouchers)		
5.2	City Ledger & Guest Ledger		
5.3	Credit Monitoring & Control Measures: Floor Limit, House Limit, High Balance Report		
5.4	Modes of Bill Settlement: Traditional & Current		
5.5	Reports at Front Office: Daily Report, Revenue Report, Discrepancy Report, No Show Report, Cancellation Report		
Total		30	50

Note:

Glossary: Students should be familiar with the glossary of terms pertaining to above mentioned topics.

Assignments: Any TWO assignments to be submitted by students by the end of the semester.

Sr. No.	Assignment Topic	Assignment Type	Reference Chapter	Expected learning outcome with reference CO number
1	Inspect the areas in your college and prepare a Checklist for the same	Chart Presentation	Chapter 1	Students will develop inspection skills and create effective checklists to ensure cleanliness, safety, and operational standards CO 1
2	Prepare report of laundry visit to commercial or OPL laundry	Submission of visit report	Chapter 2	Students will understand laundry operations, equipment usage, workflow, and hygiene practices through observation and detailed reporting CO 2
3	Presentation on exotic flowers, foliage and accessories used for making a flower arrangement	Live or PPT presentation	Chapter 3	Students will understand and identify exotic flowers, foliage, and accessories used creatively in professional flower arrangement presentations CO 3
4	Post Departure Courtesy Services and their impact for Luxury Hotels	Written assignment	Chapter 4	Students will learn about the post departure courtesy services and their impact for luxury hotels CO 4
5	Prepare and present a Discrepancy Report – by comparing the Physical Status Report and Room Occupancy Report (Use hypothetical data)	Chart Presentation	Chapter 5	Students will learn to identify and report room discrepancies by comparing physical status and occupancy data using hypothetical case scenarios CO 5

References:

1. Hotel Housekeeping and Operations by G Raghubalan, Smritee Raghubalan.
 2. Housekeeping Training Manual by Sudhir Andrews.
 3. Managing Housekeeping Operations by Aleta Nitchke & William Frye of American Hotel & Lodging Educational Institute.
 4. Hotel, Hostel & Hospital Housekeeping by Brenson & Lanox.
 5. Professional Management of Housekeeping Operations by Thomas J A Jones.
 6. Front Office Management by S. K. Bhatnagar.
 7. Hotel Front Office Training Manual by Sudhir Andrews.
 8. Principles of Hotel Front Office Operations by Sue Baker, P. Bradley, J. Huyton.
 9. Hotel Front Office Operations and Management by Jatashankar R. Tewari.
 10. Hotel Front Office Management by James A Bardi.
 11. Check in Check out: Managing Hotel Operations by Gary Vallen, Jerome Vallen.
 12. Managing Front Office Operations by Michael Kasavana.
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Subject: Rooms Division III (PRACTICAL)

Subject Code: HS 243 P **Vertical:** Minor MNP

Subject Credits: 02 **Hours per week:** 04

Semester: III

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination (Performance in the Practical Exams)	Total Marks
15	35	50

Course Outcomes:

- CO 1: Discuss housekeeping operations and room upkeep.
 CO 2: Understand laundry operations and linen management.
 CO 3: Develop aesthetics and presentation skills required for flower arrangements.
 CO 4: Outline key front office procedures related to guest stay & departure.
 CO 5: Apply knowledge of front office accounting by performing various bill settlement methods & generating reports.

Practicals:

Minimum **15 Individual Practicals** to be conducted during the semester.

1. Prepare and use Room & Public Area Check-list / Inspection List
2. Par Stock Calculation of Room Linen: 100 rooms business hotel with OPL
3. Identification & Removal of Stains
 - Tea / Coffee / Juice
 - Red Wine
 - Ink
4. Identification & Removal of Stains
 - Gravy / Oil / Grease
 - Lipstick
 - Mud
5. Laundry Procedure
 - Soiled linen collection and sorting
 - Spot cleaning
 - Washing / Dry cleaning – Bluing and Starching
 - Ironing and folding
6. Demonstration on various Flower Arrangements
 - Round shape
 - Oval shape
 - Square shape
 - Crescent shape
 - Fan shape
 - Ikebana
7. Student presentation on various Flower Arrangements
8. Role play on Room change procedure
9. Departure procedure along with notification
10. Express checkout & Group checkout procedure
11. Early/Late Check-out and Late Charges procedure

12. Bill settlement procedure with cash (Indian currency), NEFT/RTGS, Debit card, UPI transactions
 13. Bill settlement procedure with Travelers' cheque, Foreign currency and Foreign currency encashment certificate
 14. Credit settlement (Credit Card, Bill to Company, City Ledger)
 15. Reports generated at Front Office
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Subject: Food Production IV PART 1 (THEORY)

Subject Code: HS 251 (P1) T **Vertical:** Major Core MJ

Subject Credits: 04 **Hours per week:** 04

Semester: IV

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination	Total Marks
30	70	100

Course Outcomes:

- CO 1: Identify, analyze, and apply the authentic ingredients, cultural influences, and modern adaptations of North & Central American cuisines.
- CO 2: Demonstrate a sound understanding of contemporary cooking methods and apply them in innovative culinary creations.
- CO 3: Understand meat and poultry classification, processing, and cookery techniques, including modern trends and alternatives like plant-based meats, ensuring quality, safety, and culinary innovation.
- CO 4: Understand fish and seafood classification, selection, processing, and cooking methods, preservation, and practical applications.
- CO 5: Compare classical and modern cold kitchen techniques with modern relevance while ensuring safety, aesthetics, and hygiene.
- CO 6: Demonstrate the art of cold meat platter design, incorporating regional styles, modern trends and professional presentation techniques.

		Hours	Marks
Chapter 1	NORTH & CENTRAL AMERICAN CUISINE	15	23
1.1	United States of America (USA): Culinary History, African and European Influences, Migration and Cultural Fusion, Indigenous People & Food, Specialty Food & Cuisine (Southern, Barbeque, Cajun, Creole, Tex-Mex, Soul, Diner Kitchen, Health-forward American cuisine)		
1.2	Canada: Culinary History, African and European Influences, Migration and Cultural Fusion, Indigenous People & Food, Specialty Food & Cuisine (Quebecois, Nova Scotia, Bannock, Canadian-Asian Crossovers)		
1.3	Central America (Costa Rica, Guatemala, Panama) & Mexico: Culinary History, African and European Influences, Migration and Cultural Fusion, Indigenous People & Food, Specialty Food & Cuisine (Tacos, Ceviche, Gallo Pinto, Mole, Tamale)		
1.4	Caribbean Islands (Jamaica, Cuba, Dominican Republic): Culinary History, African and European Influences, Migration and Cultural Fusion, Indigenous People & Food, Specialty Food & Cuisine (Jerk, Curries, Doubles, Stews, Mofongo)		
Chapter 2	MODERN COOKING TECHNIQUES	10	15
2.1	Sous Vide Cooking: Application & Use in Hotels & Fine Dining		
2.2	Molecular Gastronomy: Specification, Foams, Gels, Edible Experiments in Texture, Temperature & Taste		

2.3	Smoking Techniques: Hot & Cold Smoking, Use Of Wood Chips, Tea Smoke, Herb Smoke, Smoked Cocktails & Presentation		
2.4	Dehydration & Vacuum Cooking: Fruit & Vegetable Chips, Powdered Garnishes, Application in Menus		
2.5	Fermentation & Probiotics: Kimchee, Kampuchea, Sourdough, Gut Health Focus In Modern Wellness, Application in Menus		
2.6	Emulsion Techniques: Creating Stable Emulsions, Vinaigrettes, Hollandaise, Mayonnaise, Sauce Texturizing And Modern Emulsifiers Low-Oil & High-Nutrient Cooking: Steaming, Air Frying, Pressure Cooking, Charcoal Grilling, Health Benefits		
Chapter 3	MEAT & POULTRY	10	18
3.1	Introduction to Meat & Poultry: Classification, Composition, Factors Affecting Quality		
3.2	Plant-Based Meats: Vegan & Mock Meats, Lab-Grown Meats		
3.3	Meat Processing & Butchery: Primal And Sub-Primal Cuts, Preservation Methods, Dry Aging, Enzyme Tenderization		
3.4	Cooking Of Meats: Types, Dressing, Cutting, And Cooking Methods, Doneness of Meats		
3.5	Availability of Meats: Canned (Oil & Water), Cured, Frozen		
Chapter 4	FISH & OTHER SEAFOOD	10	18
4.1	Introduction to Fish & Other Seafood: Classification, Nutritional Value, Market Forms		
4.2	Selection and Storage: Quality Indicators, Storage Techniques, Preservation Methods (Chilling, Freezing, Salting, Smoking), Processing Techniques, Cleaning and Gutting, Filleting, Skinning, Marinating, Salt Curing & Baking		
4.3	Cooking Methods for Fish & Seafood: Grilling, Poaching, Frying, Steaming, Baking, Ceviche		
4.4	Availability: Canned (Oil & Water), Cured, Frozen		
Chapter 5	ADVANCED COLD KITCHEN (GARDE MANGER)	10	16
5.1	Advanced Cold Kitchen (Garde Manger) Storage Practices, Hygiene Protocols, Relevance In Luxury Dining, Event Catering & Buffet Services		
5.2	Introduction to Charcuterie: Definition, History, Global Influences (French, German, Italian), Modern Relevance in Culinary Arts And Hospitality		
5.3	Classification of Charcuterie Products: Cured Meats: Types of Bacon, Ham & Beef (Salami, Prosciutto, Serrano, Bresaola) Sausages: Fresh, Cooked, Dry, Emulsified Pâtés, Terrines, Galantines & Ballotines: Types, Preparation, Presentation		
5.4	Forcemeats: Types, Basic Ingredients & Tools, Meat & Fat Selection, Salt, Curing Agents, Herbs, Spices, Gelatin, Aspic		
5.5	Preservation & Food Safety: Storage, Shelf-Life, Chilling, Freezing, HACCP In Cold Meat Preparation, Safe Handling: Nitrates, Botulism, Cross-Contamination		

Chapter 6	COLD MEAT PLATTERS	5	10
6.1	Platter Design Principles: Color, Texture, Symmetry		
6.2	Choosing Meats & Accompaniments: Cold Meats, Bread, Cheese, Dips, Pickled Vegetables, Microgreens, Fruits, Nuts		
6.3	Regional & Thematic Platters: Italian Antipasto, French Charcuterie Board, German Wurstplatte, Indian Cold Meat Platters		
6.4	Modern Innovations: Plant-Based Charcuterie Options, Artisanal & Farm-To-Table Cured Meats		
6.5	Cheese & Charcuterie Board Design: Types of Cheese (By Texture, Milk Source, Aging), Cheese Pairing Principles (With Fruits, Nuts, Honey, Wine), Designing Modern Grazing Boards & Themed Platters, Presentation & Food Styling Tips		
Total		60	100

Note:

Glossary: Students should be familiar with the glossary of terms pertaining to above mentioned topics.

Assignments: Any FOUR assignments to be submitted by students by the end of the semester.

Sr. No.	Assignment Topic	Assignment Type	Reference Chapter	Expected learning outcome with reference CO number
1	Create an interactive digital culinary map of North & Central America. Pin key dishes, origin stories, fusion trends, and plating styles	Interactive PDF / Google Map / PowerPoint	Chapter 1	Regional food diversity, food fusion, plating visuals, cultural-historical links CO 1
2.	Record a demo of one modern cooking technique (e.g., sous-vide or molecular gastronomy). Explain science, equipment used, and potential menu applications in fine dining or luxury hotels	Video (MP4 / YouTube) + Write-up	Chapter 2	Innovation, technology use, guest experience enhancement, scientific principles CO 2
3.	Identify and Illustrate Primal & Sub-Primal Cuts with Preservation Techniques	Report + Diagram Submission	Chapter 3	Understand and identify primal and sub-primal meat cuts; explain preservation methods like dry aging and enzyme tenderization CO 3
4	Create a Practical Guide on Selection, Storage, and Processing of Fish & Seafood	Report + Practical Demo (optional video/photo log)	Chapter 4	Demonstrate understanding of fish and seafood quality indicators, storage methods, and processing techniques including gutting and marinating CO 4

5	Design a Charcuterie Board with Themed Presentation	Photo submission + Design board PDF	Chapter 5	Understand the classification of charcuterie products apply preservation and presentation techniques, and explore global influences in charcuterie CO 5
6	Design and assemble a themed cheese & charcuterie or vegan grazing board for a luxury brunch. Focus on presentation, pairing, and food styling trends. Include a sourcing sheet.	Photo submission + Design board PDF	Chapter 6	Food styling, ingredient pairing, boutique presentation, brunch trends CO 6

References:

1. The Professional Chef by The Culinary Institute of America
 2. Culinary: United States by Randi Danforth, Peter Feierabend (American regional cooking, indigenous dishes, and food history)
 3. Mexico: The Cookbook by Margarita Carrillo Arronte
 4. Canadian Cuisine: A Culinary Journey by Anita Stewart (Canadian regional flavors, history, and indigenous cooking)
 5. Essentials of North American Cuisine by Susan Curtis (Traditional and contemporary dishes from the U.S., Canada, and Mexico)
 6. Meat Science: An Introductory Text by P.D. Warriss
 7. The Meat Buyer's Guide by North American Meat Institute (NAMI)
 8. Fish Processing Technology by George M. Hall
 9. Seafood Handbook: The Comprehensive Guide to Sourcing, Buying & Preparation by Seafood Business Editors
 10. Modernist Cuisine: The Art and Science of Cooking by Nathan Myhrvold (Sous-Vide, Emulsions, And Molecular Gastronomy)
 11. Sous Vide: Better Home Cooking by Hugh Acheson
 12. Molecular Gastronomy: Exploring the Science of Flavor by Hervé This
 13. Garde Manger: The Art and Craft of the Cold Kitchen by The Culinary Institute of America
 14. Modern Garde Manger: A Global Perspective by Robert Garlough, Angus Campbell
 15. The Third Plate: Field Notes on the Future of Food by Dan Barber (Sustainability, farm-to-table movement, and ethical food systems)
 16. Textbook of Food Science and Technology by B. Srilakshmi
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Subject: Food Production IV PART 1 (PRACTICAL)

Subject Code: HS 251 (P1) P

Vertical:

Major Core MJP

Subject Credits: 02

Hours per week: 04

Semester: IV

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination (Performance in the Practical Exams)	Total Marks
15	35	50

Course Outcomes:

CO 1: Identify, analyze, and apply the authentic ingredients, cultural influences, and modern adaptations of North & Central American cuisines

CO 2: Apply skills and knowledge of cuts of chicken and fish

CO 3: Demonstrate the art of cold meat platter design, incorporating regional styles, modern trends and professional presentation techniques

Practicals:

Teachers/Instructors may customize the menu based on student learning goals, availability of ingredients, and practical feasibility.

Please note, the regions and dishes listed below are for reference and suggestions only.

Practical No.	Cuisine / Theme	Sample Menu / Dishes
1	United States – Southern BBQ	Smoked Ribs, Mac & Cheese, Cornbread, Coleslaw
2	United States – Classic Diner	Cheeseburger, Fries, Apple Pie, Milkshake
3	United States – Thanksgiving	Roast Turkey, Stuffing, Mashed Potatoes, Pumpkin Pie
4	Canada – Quebec French-Inspired	Poutine, Tourtière, Maple-glazed Salmon, Nanaimo Bars
5	Canada – Traditional Breakfast	Peameal Bacon, Pancakes with Maple Syrup, Baked Beans, Coffee
6	Canada – Coastal (Nova Scotia)	Seafood Chowder, Lobster Roll, Blueberry Grunt
7	Central America – Mexican Street Food	Tacos al Pastor, Elote, Churros, Agua Fresca
8	Central America – Traditional Mexican	Chicken Mole, Mexican Rice, Refried Beans, Flan
9	Central America – Guatemalan	Pepian, Tamales, Rellenitos de Plátano
10	Central America – Costa Rican	Gallo Pinto, Casado Plate, Tres Leches Cake
11	Central America – Panama	Sancocho, Prawns Ceviche, Tamales, Patacones
12	Caribbean Islands	Jerk Chicken, Mofongo, Arroz Con Pollo
13	Cold Kitchen – Garde Manger	Charcuterie Board, Chicken Galantine, Deviled Eggs, Waldorf Salad

14	Cuts of Chicken	
15	Cuts of Fish	

Note:

- 15 practicals should be planned for the semester.
 - Menu (minimum 2 per zone) should consist of appetizer / soup, meat / vegetable, starch, salad, accompaniment & dessert – **11 or 12 Practical**
 - United States of America (USA)
 - Canada
 - Central America (Costa Rica, Guatemala, Panama) & Mexico
 - Caribbean Islands (Jamaica, Cuba, Dominican Republic)
 - Cold Kitchen & Cold Meat Platter – **1 or 2 Practical**
 - Cuts of Chicken – **1 Practical**
 - Cuts of Fish – **1 Practical**
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Subject:	Food Production IV PART 2 (THEORY)		
Subject Code:	HS 251 (P2) T	Vertical:	Major Core MJ
Subject Credits:	04	Hours per week:	04
Semester:	IV		

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination	Total Marks
30	70	100

Course outcomes:

- CO1: Understand and apply regional European culinary styles, ingredients, and techniques, creating authentic dishes with a focus on cultural context, sustainability, and modern presentation
- CO2: Analyze how sense and texture influence food perception, conduct sensory evaluations to improve dish quality and consumer satisfaction
- CO3: Assess efficient purchasing, receiving, and storage procedures, use inventory tools to ensure quality, cost control, and sustainability
- CO4: Identify types of food additives, assess their functional and health impacts, and apply safe & regulated usage in recipes
- CO5: Interpret national and international food laws and safety regulations, compliance measures like HACCP and ISO to maintain legal and quality standards
- CO6: Recognize consumer rights and ethical food practices, promote sustainability, transparency, and cultural sensitivity

		Hours	Marks
Chapter 1	EUROPEAN CUISINE	10	25
1.1	Introduction to European Cuisine: France, Italy, Spain, Germany, United Kingdom, Portugal, Greece, Norway, Austria, Denmark, Finland, Belgium		
1.2	Introduction to Culinary Influences: Overview of European Culinary Traditions, Key Cooking Techniques and Philosophies, Haute Cuisine, Key Historical Influences, Signature Dishes and Techniques, Local Staples and Fresh Ingredients, Latest Trends		
Chapter 2	SENSORY SCIENCE & FOOD TEXTURE	10	15
2.1	Overview of Sensory Science		
2.2	The Human Sensory System: Sensory Perception & Mechanism		
2.3	Psychology of Sensory Perception		
2.4	Organoleptic and Sensory Evaluation		
2.5	Standardized Sensory Testing Protocols		
2.6	Latest Trend: Digital Sensory Testing		
2.7	Sensory Properties of Food and Texture in Different Food Categories: Texture in Dairy Products, Bakery and Confectionery, Meat Substitutes and Plant-Based Foods		
2.8	Influence of Processing on Food Texture: Impact of boiling, roasting, frying, steaming, and grilling on texture in various food products, Maillard reaction and caramelization effects on the surface texture of foods, Innovations in food texture caused by		

	advanced cooking methods like Sous-Vide, Pressure Cooking, and Slow Cooking		
Chapter 3	PURCHASING, RECEIVING, STORING AND INVENTORY MANAGEMENT	10	15
3.1	Introduction to Purchasing, Receiving, Storing and Inventory Management		
3.2	Purchasing Models and Strategies: Centralized vs. Decentralized Purchasing, Local vs. Global Sourcing, Just-In-Time (JIT)		
3.3	Supplier Selection and Purchasing Channels: Supplier Relationship Management (SRM), Sustainable and Ethical Sourcing (Fair trade, cruelty-free, organic certification)		
3.4	Receiving and Deliveries: Inspecting Deliveries, Storage and Inventory Management Process & Documentation, HACCP Guidelines, Quality Control- Smart Technology in Receiving & Storage, Best Practices- Inventory Systems, Sustainable Storage		
3.5	The Role of Technology in Purchasing, Storage and Inventory Management: Digital Tools and Software for Purchasing, Storage and Inventory- POS, Data Analytics for Purchasing Decisions, Artificial Intelligence and Machine Learning		
3.6	Waste Management and Sustainability in Purchasing and Inventory: Managing Food Waste in Inventory, Circular Economy in Hospitality		
Chapter 4	FOOD ADDITIVES & THEIR EFFECTS	10	15
4.1	Introduction to Food Additives		
4.2	Definition, Purpose, Historical Use & Categories: Natural vs. Synthetic Additives.		
4.3	Classification of Food Additives: Preservatives: (Sodium Benzoate, Sorbates) Colorants: (Annatto, Beta-Carotene, Tartrazine) Flavor Enhancers: (Mono Sodium Glutamate-MSG, Yeast Extracts) Sweeteners: Natural & Artificial (Aspartame, Sucralose, Stevia) Emulsifiers & Stabilizers: (Lecithin, Carrageenan) Thickeners & Gelling Agents: (Agar-Agar, Xanthan Gum) Antioxidants: (Butylated Hydroxyanisole-BHA, Butylated Hydroxytoluene-BHT, Vitamin C) Clean-Label Additives: Plant-Based, Minimally Processed Bio-Preservatives: Use of Natural Microorganisms To Preserve Food		
4.4	Applications in Modern Cuisine: Molecular Gastronomy, Texture Modification, Stabilizers in Plant-Based Foods		
4.5	Liquid Nitrogen & Dry Ice: Applications of Liquid Nitrogen, Flash-freezing techniques, Creating dramatic presentation effects (fog/mist), Safety in Handling & Regulatory Guidelines		
4.6	Banned Additives: Additives banned in different countries and reason behind the bans		

Chapter 5	FOOD LAWS AND REGULATIONS	10	15
5.1	Food Safety & Standard (FSS) Act 2006: Introduction, Salient Features, International Food Safety Regulations, Food Safety & Standards Authority of India (FSSAI)		
5.2	Purpose and Importance: Understanding the role of food laws in ensuring public health, standardization, and business integrity		
5.3	Stakeholders in Food Law Enforcement: Roles of government bodies, food businesses, and consumers		
5.4	Legal Definitions and Terminologies: Basic legal terms used in food legislation, BIS (Bureau of Indian Standards), Labeling Regulations, Adulteration, etc.		
5.5	Key Areas Under Food Safety & Standard Act		
5.6	Packaging & Labelling, Food Licenses & Registration, Penalties		
5.6	FSSAI Licensing & Registration: Process, documentation, compliance timelines, Digitalization of FSSAI compliance and e-inspections		
5.7	Introduction to other Food Safety Laws & Standards		
	ISO standards for Food - ISO- 22000, Food Safety Modernization Act (FSMA), Codex Alimentarius, Global Food Safety Initiative (GFSI) & FSSC 22000		
5.8	Packaging and Labeling Regulations: Recent updates, mandatory declarations, front-of-pack labeling, Symbols used in Labeling		
5.9	Training and Certification Requirements: Food Safety Training and Certification (FoSTaC) training, hygiene ratings, and food handler certification		
Chapter 6	CONSUMER PROTECTION AND FOOD BUSINESS ETHICS	10	15
6.1	Consumer Protection in the Food Industry		
6.2	Consumer Rights in Food Safety: Right to safe, informed, and healthy food		
6.3	Role of Regulatory Bodies: FSSAI, Consumer Forums, Legal Metrology Department		
6.4	Food Fraud and Misbranding: Common fraudulent practices and legal remedies		
6.5	Grievance Redressal Mechanisms: Online complaint portals, Food safety helplines, Growing role of Social Media		
6.6	QR Codes and Transparency Labels: Implementation for traceability		
6.7	Food Business Ethics: Definition, Balancing profit, Safety & social responsibility		
6.8	Employee Ethics in Kitchens: Workplace conduct, Honesty in operations		
6.9	Cultural Sensitivity in Menus and Food Production: Respecting religious and regional dietary practices, farm-to-table, zero cruelty, inclusive menu designs (vegan, allergen-friendly, halal/kosher)		
Total		60	100

Note:

Glossary: Students should be familiar with the glossary of terms pertaining to above mentioned topics.

Assignments: Any FOUR assignments to be submitted by students by the end of the semester.

Sr. No.	Assignment Topic	Assignment Type	Reference Chapter	Expected learning outcome with reference CO number
1.	Create a digital travelogue featuring any 5 European cuisines. Highlight signature dishes, modern trends, and sustainability adaptations. Include plating visuals or video plating demo.	Digital Travelogue (PDF/Canva) + Optional video demo	Chapter 1	Regional food knowledge, sustainability trends, plating innovation CO 1
2.	Conduct a group activity where students are to identify various ingredients and textures with the help of senses including sight, smell, taste and touch	Group Activity, Class assignment	Chapter 2	Develop and identify sensory & texture role in various ingredients CO 2
3.	Field visit of any hospitality outlet where students would see the real life application of systems involved in purchasing, receiving, storing and inventory management	Field visit + Report	Chapter 3	Understand real life application of systems involved in purchasing, receiving, storing and inventory management CO 3
4.	Analyze 5 real food product labels for additive content. Classify additives, assess health impacts, and suggest clean-label alternatives. Include a comparison chart.	Excel Sheet + Report PDF	Chapter 4	Clean-label advocacy, food law awareness, consumer education CO 4
5.	Students simulate a global food trade negotiation between countries. Each team represents a country with its food safety standards (e.g., FSSAI, FDA, EFSA). Create export-import agreements with compliant standards.	Role Play Script + Country Brief + Trade Chart	Chapter 5	Global food law, compliance, teamwork, international trade awareness CO 5
6.	Investigate a real-life case of food fraud, misbranding, or consumer complaint in the hospitality industry. Present legal actions taken, brand reputation impact, and ethical resolution strategies.	Case Study Report + Infographic	Chapter 6	Legal analysis, brand ethics, customer advocacy CO 6

References:

1. European Gastronomy into the 21st Century by Caillein Gillespie & John Cousins.
 2. The Professional Chef by The Culinary Institute of America.
 3. La Technique & La Methode by Jacques Pépin.
 4. Theory of Catering by Kinton & Ceserani.
 5. Modernist Cuisine: The Art and Science of Cooking by Nathan Myhrvold.
 6. On Food and Cooking: The Science and Lore of the Kitchen by Harold McGee.
 7. Food Texture and Viscosity: Concept and Measurement by Malcolm Bourne.
 8. Sensory Evaluation Techniques by Morten Meilgaard, B. Thomas Carr, Gail Vance Civille.
 9. The Flavor Bible by Karen Page & Andrew Dornenburg.
 10. Molecular Gastronomy: Exploring the Science of Flavor by Hervé This.
 11. Food Additives by A. Larry Branen, P. Michael Davidson, Seppo Salminen, John H. Thorngate.
 12. Food Safety Management: A Practical Guide for the Food Industry by Yasmine Motarjemi.
 13. Food Safety and Quality Control by S. Roday.
 14. FSSAI Food Safety Compliance & Standards by CA Rajkumar S. Adukia.
 15. Purchasing and Inventory Control by Partho Pratim Seal.
 16. Consumer Protection in Hospitality, Travel & Tourism by Dr. Gulshan Soni.
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Subject: Food Production IV PART 2 (PRACTICAL)**Subject Code: HS 251 (P2) P****Vertical: Major Core MJP****Subject Credits: 02****Hours per week: 04****Semester: IV**

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination (Performance in the Practical Exams)	Total Marks
15	35	50

Course Outcomes:

CO1: Understand and apply regional European culinary styles, ingredients, and techniques, creating authentic dishes with a focus on cultural context, sustainability, and modern presentation

Practicals:

Teachers/Instructors may customize the menu based on student learning goals, availability of ingredients, and practical feasibility.

Please note, the regions and dishes listed below are for reference and suggestions only.

Practical No.	Country	Sample Menu / Dishes
1	France	French Onion Soup, Quiche Lorraine, Coq au Vin, Ratatouille, Crème Brûlée
2	Italy	Caprese Salad, Lasagna al Forno, Spaghetti Bolognese, Tiramisu
3	Spain	Gazpacho, Paella Valenciana, Pan con Tomate, Crema Catalana
4	Germany	Kartoffelsalat, Sauerbraten, Rotkohl, Black Forest Cake
5	United Kingdom	Leek & Potato Soup, Fish n Chips, Roast Beef with Yorkshire Pudding, Minted Peas, Sticky Toffee Pudding
6	Portugal	Caldo Verde, Bacalhau à Brás, Broa, Pastel de Nata
7	Greece	Tzatziki with Pita Bread, Moussaka, Horiatiki, Baklava
8	Norway	Gravlaks with Mustard Sauce, Fårikål, Boiled Potatoes, Krumkake
9	Austria	Goulash Soup, Wiener Schnitzel, Potato Salad, Sachertorte
10	Denmark	Smørrebrød, Frikadeller, Pickled Red Cabbage, Rødgrød med Fløde
11	Finland	Lohikeitto, Karjalanpaisti, Rye Bread, Mustikkapiirakka
12	Belgium	Endive Salad with Walnuts, Moules-frites, Beer-braised Onions, Belgian Waffles

Note:

- 15 practicals should be planned for the semester.
- Menu (minimum 1 per country) should consist of appetizer/soup, meat / vegetable, starch, salad, accompaniment & dessert – **15 Practical**s

Subject: Food & Beverage Service IV PART 1 (THEORY)

Subject Code: HS 252 (P1) T **Vertical:** Major Core MJ

Subject Credits: 04 **Hours per week:** 04

Semester: IV

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination	Total Marks
30	70	100

Course Outcomes:

CO 1: Understand the history & distillation of spirits.

CO 2: Identify the types, production process and popular brands of spirits.

CO 3: Identify and classify different types of liqueurs and understand their production methods and uses in cocktails.

CO 4: Discuss beverage service standards and responsible beverage service practices.

CO 5: Interpret beverage costing, basics of inventory management and beverage pricing.

CO 6: Assess current trends and creativity in the beverage service sector.

		Hours	Marks
Chapter 1	INTRODUCTION TO SPIRITS	09	16
1.1	History & Origin of Spirits: Evolution of Distillation and Spirit Production, Cultural Significance of Spirits Across The World		
1.2	Distillation Methods: Pot Still & Patent Still, Fermentation Process and its Role in Spirit Production, Key Factors Influencing Spirit Quality (e.g. Raw Materials, Water, Aging)		
1.3	Alcohol Content Calculation: Alcohol by Volume (ABV), Alcohol by Weight (ABW), Proof (American & Gay-Lussac)		
Chapter 2	TYPES OF SPIRITS	16	24
2.1	Whisky: Types – Scotch, Irish, Bourbon, Japanese – Production process and brands		
2.2	Brandy: Types – Cognac, Armagnac – Production process and brands		
2.3	Rum: Types – White, Dark, Spiced – Production process and brands		
2.4	Gin: Types – London Dry, Holland's – Production process and brands		
2.5	Tequila: Types – Blanco, Reposado, Añejo – Production process and brands		
2.6	Vodka: Types – Russian, Polish, Flavoured – Production process and brands		
2.7	Other Spirits: Absinthe, Mezcal, Aquavit		
2.8	Indian spirits: Overview & Cultural and regional significance of Indian distilleries and spirits Popular Spirits: Feni, Toddy, Arrack, Mahua Indian Made Foreign Liquor (IMFL): Indian made Scotch whiskies and their brands, other spirits		

Chapter 3	LIQUEURS	08	14
3.1	Introduction to Liqueurs: Definition, Classification (Fruit-Based, Cream-Based, Herbal)		
3.2	Production Methods: Percolation, Infusion/Maceration		
3.3	Popular Brands		
3.4	Use in Cocktails		
Chapter 4	BEVERAGE SERVICE STANDARDS	09	16
4.1	Service Techniques: Temperature Principles, Glassware Science, Pouring Techniques for Spirits – Traditional and Latest Trends (Slam Cocktails, Infused Drinks, Smoked Beverages, Use of Dry Ice in Service, etc.)		
4.2	Guest Interaction: Understanding Guest Preferences, Upselling and Cross-Selling Beverages, Promotional Techniques and Tools used for attracting guests		
4.3	Responsible Beverage Service: Alcohol laws and regulations in India, Promoting responsible drinking, Handling intoxicated guests		
Chapter 5	BEVERAGE COSTING	09	15
5.1	Introduction to Beverage Costing: Importance & Objectives of Beverage Costing, Difference between Food and Beverage Costing		
5.2	Inventory Management: Importance of Inventory Control, Records Maintained		
5.3	Pricing Strategies for Beverages: Factors influencing beverage pricing, Pricing methods (Cost Plus, Competitive And Value-Based Pricing), Selling Pricing Calculation (Potential Sales Value, Weighted Average Price and others)		
Chapter 6	INDUSTRY TRENDS AND INNOVATIONS	09	15
6.1	Sustainability in Beverage Industry: Eco-friendly practices followed in bar operations, Use of local and organic ingredients		
6.2	Technology in Beverage Service: Digital menus and ordering systems, Use of social media in promotion		
6.3	Emerging Trends: Rise of Non-Alcoholic Spirits and Beverages, Craft spirits		
Total		60	100

Note:

Glossary: Students should be familiar with the glossary of terms pertaining to above mentioned topics.

Assignments: Any FOUR assignments to be submitted by students by the end of the semester.

Sr. No.	Assignment Topic	Assignment Type	Reference Chapter	Expected learning outcome with reference CO number
1	Presentation on Pot Still & Patent Still methods of distillation	Presentation / Debate	Chapter 1	Students will present on the 2 methods of distillation. This can be a group assignment as a debate defending which is better and why CO 1
2	Comparative Analysis of Spirit Production	PPT/ Presentation	Chapter 2	Students will understand history, production & types of spirits CO 2
3	Presentation Chart of any 10 Liqueurs	Presentation / Written assignment	Chapter 3	Students will prepare a Chart on at least 10 liqueurs mentioning Brand Name, Base Spirit, Flavour(s) and Country of Origin CO 3
4	Create a short video demonstrating and comparing traditional and any 1 new trend in pouring techniques for the same beverage	Video/ Presentation	Chapter 4	Students will learn beverage service standards CO 4
5	Create a costing sheet for the cocktail menu of any running restaurant or bar of choice	Written assignment	Chapter 5	Students will learn beverage costing and understand the beverage pricing strategy CO 5
6	Write report on Sustainability & Innovation	Field visit & report	Chapter 6	Students will make a visit to any restaurant/bar/hotel to learn the various sustainability & innovation practices CO 6

References:

1. Food & Beverage Service by Lillicrap & Cousins.
 2. Modern Restaurant Service by John Fuller.
 3. Food & Beverages Service Training Manual by Sudhir Andrews.
 4. Bar & Beverage Book by Costas Katsigris, Mary Porter, Thomas.
 5. Professional Guide to Alcoholic Beverages by Lipinski.
 6. Alcoholic Beverages by Lipinski & Lipinski.
 7. Bartenders Guide by BD & L.
 8. Food & Beverage Service by R. Singaravelavan.
 9. Spirits and Liqueurs in the Kitchen: A Practical Kitchen Handbook by Stuart Walton, Norma Miller.
 10. Managing Bar & Beverage Operations by Lendal Kotschevar & Mary Tanke of American Hotel & Lodging Educational Institute.
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Subject:	Food & Beverage Service IV PART 1 (PRACTICAL)		
Subject Code:	HS 252 (P1) P	Vertical:	Major Core MJP
Subject Credits:	02	Hours per week:	04
Semester:	IV		

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination (Performance in the Practical Exams)	Total Marks
15	35	50

Course Outcomes:

- CO 1: Identify major spirit categories and their service procedures.
CO 2: Create beverage inventory formats for efficient stock control and apply cost-control techniques to optimize profitability.
CO 3: Demonstrate liqueur service and effective guest interaction skills.
CO 4: Develop digital beverage list & social media promotional for bar.

Practicals:

Minimum **15 Individual Practicals** to be conducted during the semester.

1. Alcohol Calculation – students are to calculate Alcohol by Weight (ABW) and Proof based on Alcohol by Volume (ABV) mentioned on bottle labels
2. Identification of major spirit categories (Whisky, Brandy, Rum, Gin, Tequila, Vodka)
3. Service of Spirits
4. Spirit label and branding analysis – Evaluate spirit labels for information, presentation and marketing appeal
5. Service of liqueurs
6. New trends in pouring techniques for alcoholic beverages
7. Role plays and situation handling related to guest preferences and upselling of beverages
8. Case study analysis – Discuss a case study of a bar or restaurant related to Responsible Beverage Service
9. Calculation of Beverage Cost
10. Beverage Inventory Formats
11. Mock Inventory – in a mock bar set up with the list of beverages, ask students to record opening stock, purchases, closing stock and consumption
12. Case study analysis – Discuss a case study of a bar or restaurant related to inventory issues
13. Design digital beverage list for bar
14. Design social media promotional campaign for bar
15. Tasting notes for Non-Alcoholic Spirits

Subject: Food & Beverage Service IV PART 2 (THEORY)

Subject Code: HS 252 (P2) T **Vertical:** Major Core MJ

Subject Credits: 04 **Hours per week:** 04

Semester: IV

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination	Total Marks
30	70	100

Course Outcomes:

- CO 1: Identify various glasses, equipment and accessories used in cocktail making
- CO 2: Understand cocktail preparation techniques, including mixing methods, and modern trends like molecular mixology
- CO 3: Discuss cigar and cigarette service, including storage, brands, and legal compliances
- CO 4: Discover menu engineering principles and pricing strategies to develop profitable beverage menus
- CO 5: Understand application of spirits and liqueurs in culinary creations, enhancing flavors in sauces, desserts, and marinades
- CO 6: Interpret beverage regulations, including GST, excise laws, ensuring legal compliance in procurement and storage

		Hours	Marks
Chapter 1	BASICS OF COCKTAILS	12	20
1.1	Introduction to Cocktails: History and evolution of cocktails, Role of cocktails in beverage industry		
1.2	Parts of Cocktails: Base, Modifier, Minor & Garnish, Importance of each part in flavour profiles		
1.3	Glassware used in making cocktails		
1.4	Equipment used in making cocktails		
1.5	Accessories used in making cocktails		
Chapter 2	COCKTAIL MAKING	12	20
2.1	Methods: Building, Stirring, Shaking, Blending, Muddling		
2.2	Types of Cocktails: Classic: Martinis, Old Fashioned, Margaritas, Mojitos, Long Island Iced Teas (LIITs), Gin & Tonics (GnTs), Collins, Cobblers, Juleps Signature: Creating unique recipes for bars and restaurants Innovative: Molecular mixology, smoked cocktails		
2.3	Rules of Making Cocktails: Do's and Don't's of making cocktails		
Chapter 3	CIGARS & CIGARETTES	12	20
3.1	Introduction and Evolution of Cigars & Cigarettes		
3.2	Parts of Cigar: Filler, Binder, Wrapper		
3.3	Storage of Cigar		
3.4	Brands of Cigar		
3.5	Parts of Cigarettes: Filler, Wrapper, Filter, Filter Wrap		

3.6	Storage of Cigarettes		
3.7	Types of Cigarettes: Regular, Flavoured, Menthol, Bidi, E-Cigarettes, Herbal Cigarettes, Nicotine-Free		
3.8	Brands of Cigarettes: International & Indian		
3.9	Legal and Ethical Considerations: Indian and international laws for smoking indoor/outdoor Designated areas for smoking – Outdoor spaces, ventilated indoor lounges Penalties for non-compliance Risks for smokers and non-smokers		
Chapter 4	BEVERAGE MENU DESIGN	10	16
4.1	Designing a Profitable Menu: Static vs Seasonal Beverage List À La Carte vs Table D'hôte (Pre-Set) Beverage List Digital vs Print Beverage List QR Code Menus: Pros & Cons		
4.2	Importance of High-Margin Items: Cost to Profit Ratio Analysis (e.g. cocktail vs. neat spirits) Strategies to Boost Sales of High-Margin Items Strategic Placement (Top-Right Corner, Highlighted Boxes) Descriptive Labeling ("Bartender's Signature," "Local Favorite")		
4.3	Menu Engineering: Importance of menu engineering and reengineering Using sales data to classify items (Star, Plow Horses, Puzzles, Dogs) Psychological pricing tactics: Charm pricing, Decoy effect		
Chapter 5	USE OF SPIRITS AND LIQUEURS IN CULINARY	07	12
5.1	Historical Significance of Spirits & Liqueurs in Culinary		
5.2	Culinary applications: Types of Spirits & Liqueurs, Flavour enhancement (Deglazing, marinades, sauces), Desserts and baking (Flambé, custards, cakes and ice creams), Preservation & tenderizing (Alcohol in pickling, curing and meat marinades)		
5.3	Safety and Best Practices: Handling & storage precautions, Legal considerations		
Chapter 6	BEVERAGE LIFE CYCLE	07	12
6.1	Beverage Life cycle: Procurement & import regulation, Introduction to custom duties & Goods & Services Tax (GST) on Imported, Indian Made Foreign Liquor (IMFL) and Local Alcoholic beverages, Storage conditions and First In First Out (FIFO), Handling expired and spoiled beverages		
6.2	Updating of Foreign Liquor Register (FLR): Mandatory record keeping as per excise laws, Daily and weekly updating of stock entries, Regular inspections by excise department and penalties		
6.3	Discarding Empties: Recycling & Sustainability Practices, Record Keeping For Discards, Safety and Security Measures, Preventing Reuse Of Bottles and Handling Breakages		
Total		60	100

Note:

Glossary: Students should be familiar with the glossary of terms pertaining to above mentioned topics.

Assignments: Any FOUR assignments to be submitted by students by the end of the semester.

Sr. No.	Assignment Topic	Assignment Type	Reference Chapter	Expected learning outcome with reference CO number
1	Prepare a presentation on various glasses, equipment and accessories used in cocktail making	PPT presentation	Chapter 1	Students will understand and be acquainted with various glasses, equipment and accessories used in cocktail making CO 1
2	Create two original cocktail recipes (one classic reinterpretation and one innovative / signature drink)	PPT / Video / Demo	Chapter 2	Students will master cocktail preparation techniques and modern trends CO 2
3	Prepare a chart on the various types of Cigarettes available in the market	Research / presentation	Chapter 3	Helps to understand types & brands of cigarettes CO 3
4	Design a bar menu	Chart / Presentation	Chapter 4	Students can learn to design profitable beverage menus using menu engineering principles CO 4
5	Illustrate the use of spirits and/or liqueurs in the recipes of any 2 dishes (one savoury, one sweet)	Research / Presentation	Chapter 5	Students can learn the use of spirits and liqueurs in culinary CO 5
6	Prepare a flowchart on the movement of bottles of alcoholic beverages from the point of order to discard	Chart / Presentation / PPT	Chapter 6	Students will understand the flow of beverage bottles in an F&B establishment CO 6

References:

1. Food & Beverage Service by Lillicrap & Cousins.
 2. Modern Restaurant Service by John Fuller.
 3. Food & Beverages Service Training Manual by Sudhir Andrews.
 4. Bar & Beverage Book by Costas Katsigris, Mary Porter, Thomas.
 5. Professional Guide to Alcoholic Beverages by Lipinski.
 6. Alcoholic Beverages by Lipinski & Lipinski.
 7. Bartenders Guide by BD & L.
 8. Food & Beverage Service by R. Singaravelavan.
 9. Spirits and Liqueurs in the Kitchen: A Practical Kitchen Handbook by Stuart Walton, Norma Miller.
 10. Ultimate Cigar Book by Richard Carleton Hacker.
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Subject: Food & Beverage Service IV PART 2 (PRACTICAL)
Subject Code: HS 252 (P2) P **Vertical:** Major Core MJP
Subject Credits: 02 **Hours per week:** 04
Semester: IV

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination (Performance in the Practical Exams)	Total Marks
15	35	50

Course Outcomes:

- CO 1: Demonstrate professional cocktail preparation techniques, including bar setup, garnish creation, and themed drink innovation
 CO 2: Develop infused spirits and spirit-based desserts, applying culinary techniques to enhance flavors
 CO 3: Assess beverage menus using menu engineering principles, QR codes and high-margin strategies
 CO 4: Analyze tax compliance by creating GST/custom duty charts and maintaining legal bar records

Practicals:

Minimum **15 Individual Practicals** to be conducted during the semester.

- Cocktail bar set up: using props and concept of sustainability
- Garnishes for cocktails: Preparation of various garnishes for cocktails
- Whisky and Brandy based classic and innovative cocktails: Preparation of whisky and brandy based classic and innovative cocktails keeping in mind sustainability of resources and ingredients
- Rum and Tequila based classic and innovative cocktails : Preparation of rum and tequila based classic and innovative cocktails keeping in mind sustainability of resources and ingredients
- Gin and Vodka based classic and innovative cocktails: Preparation of gin and vodka based classic and innovative cocktails keeping in mind sustainability of resources and ingredients
- Wine and Beer based classic and innovative cocktails: Preparation of wine and beer based classic and innovative cocktails keeping in mind sustainability of resources and ingredients
- Prepare a cocktail list which includes current trends
- Infuse white spirits such as vodka, gin, white rum with herbs, dried fruit peels, seeds, flowers, barks etc. to create your own customized liqueurs
- Prepare one savoury product using spirits or liqueurs
- Prepare one sweet product using spirits or liqueurs
- Redesign a poorly performing mock beverage menu (**2 Practicals**)
 - Classify items as stars, plowhorses, puzzles, or dogs
 - Suggest reengineering tactics (e.g., drop "dogs," reposition "puzzles")
 - Highlighting 2 high-margin items using strategic placement/descriptions
 - Adding QR code instructions (pros/cons analysis)

12. Maintain a mock FLR (**Foreign Liquor Register**)
 - For a week's bar transactions, recording purchases, sales, and taxes
 - Use a template to log daily stock entries, GST-paid invoices, and excise permits
 - Cross-verify entries with sample excise inspection scenarios
 13. GST & Custom Duty Calculation: Workshop on calculation of applicable GST and customs duties using current tax slabs for imported and domestic alcoholic beverages (whisky, wine, beer, etc.)
 14. Tax Compliance Infographic Challenge: Design an infographic/poster summarizing GST rates for IMFL, imported, and craft beverages
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Subject: Rooms Division IV PART 1 THEORY (HOUSEKEEPING)

Subject Code: HS 253 (P1) T Vertical: Major Core MJ

Subject Credits: 04 Hours per week: 04

Semester: IV

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination	Total Marks
30	70	100

Course Outcomes:

- CO 1: Identify and classify various types of natural and manmade fibres.
 CO 2: Demonstrate awareness of safety & security procedures followed.
 CO 3: Understand accidents and demonstrate first-aid protocols followed.
 CO 4: Apply environmentally sustainable practices in housekeeping operations.
 CO 5: Explain the principles of horticulture and landscaping.
 CO 6: Discover new trends in housekeeping.

		Hours	Marks
Chapter 1	TEXTILES	11	20
1.1	Classification of Fibres with examples: Natural Fibres: Vegetable fibres, Animal fibres and Mineral fibres		
1.2	Man-made Fibres: Regenerated fibres and Synthetic fibres		
1.3	Fabrics used in Hotel Industry: Characteristics and uses		
1.4	Treatments given to the fabric Uniform Designing – Points to be considered while designing the departmental uniforms		
Chapter 2	SAFETY AND SECURITY	11	20
2.1	Meaning of Safety and Security		
2.2	Role of Housekeeping department in Safety and Security of Guest and Hotel Property		
2.3	Fire – Types of Fire and Fire Extinguishers		
2.4	Role of Housekeeping department in dealing with unusual situations: Fire, Theft, Bomb-Scare, Death		
Chapter 3	ACCIDENTS AND FIRST-AID	10	16
3.1	Meaning of Accident		
3.2	Types of Accidents		
3.3	HAZMAT (Hazardous Material)		
3.4	Preventive Measures		
3.5	Importance of First-Aid		
3.6	Standard content of a First-Aid box		
3.7	Do's and Don'ts while giving First-Aid		

Chapter 4	ENVIRONMENTAL PRACTICES IN HOUSEKEEPING	10	16
4.1	Introduction to Green Housekeeping and Ecotels		
4.2	3Rs: Reduce, Reuse and Recycle		
4.3	Use of Biodegradable Cleaning Agents		
4.4	Energy Conservation in Housekeeping Operations		
4.5	Waste Reduction Programs		
4.6	Recycling of Materials		
4.7	Green Certification for Hotels- A Case Study		
Chapter 5	GARDENING AND HORTICULTURE	08	12
5.1	Concept of Landscape and Horticulture		
5.2	Types of Gardens: Japanese Garden, French Garden, Mughal/Islamic Garden, Botanical Garden, Kitchen Garden, Rock Garden, Vertical Garden, Hanging Garden		
5.3	Care and Maintenance of Indoor and Outdoor Plants		
5.4	Bonsai – Concept and tools used in Bonsai making		
Chapter 6	CHANGING TRENDS IN HOUSE-KEEPING	10	16
6.1	Single Window Service		
6.2	Women-Only Floor		
6.3	Changing Trends in Amenities		
6.4	Ergonomics in Housekeeping		
6.5	New Trends in Design		
6.6	New Trends in Accommodation: Pet Friendly hotels, Home stay, Villa, Time share, Hostel Stays, Staycation, Camping and Glamping, Hybrid hotels		
	Total	60	100

Note:

Glossary: Students should be familiar with the glossary of terms pertaining to above mentioned topics.

Assignments: Any FOUR assignments to be submitted by students by the end of the semester.

Sr. No.	Assignment Topic	Assignment Type	Reference Chapter	Expected learning outcome with reference CO number
1	Presentation on identification and use of different types of fabrics.	Collection and Presentation of Fabrics	Chapter 1	Students will identify, describe, and demonstrate appropriate use of various fabric types in textile and garment applications CO 1
2	Types of Fire and Fire Extinguishers	Chart Presentation	Chapter 2	Students will understand different fire types and select appropriate fire extinguishers, ensuring safety and effective emergency response CO 2
3	Presentation of any 1 type of accident explaining its causes and preventive measures	PPT presentation	Chapter 3	Students will understand various accidents that commonly occur in hotels and the preventive measures CO 3

4	Presentation on Ecotel and Eco-friendly practices followed by hotels (visit any nearby hotel to gain the information)	Visit to a hotel to gain the information and report submission	Chapter 4	Students will understand Ecotel concepts and identify eco-friendly hotel practices CO 4
5	Prepare a model of any type of garden	3D model preparation and presentation	Chapter 5	Students will develop teamwork, creativity, and practical skills by collaboratively designing and constructing a detailed garden model CO 5
6	Present any two new trends of accommodation (Group Activity)	PPT Presentation	Chapter 6	Students will identify, analyse, and present two emerging accommodation trends, covering concept, scope, target market, benefits, and comparisons. CO 6

References:

1. Hotel Housekeeping and Operations by G Raghubalan, Smritee Raghubalan.
 2. Housekeeping Training Manual by Sudhir Andrews.
 3. Managing Housekeeping Operations by Aleta Nitchke & William Frye of American Hotel & Lodging Educational Institute.
 4. Hotel, Hostel & Hospital Housekeeping by Brenscon & Lanox.
 5. Professional Management of Housekeeping Operations by Thomas J A Jones.
 6. Hotel Housekeeping by Malini Singh.
 7. Bonsai Namaste by Prajakta Kale.
-

Subject: Rooms Division IV PART 1 PRACTICAL (HOUSEKEEPING)

Subject Code: HS 253 (P1) P **Vertical:** Major Core MJP

Subject Credits: 02 **Hours per week:** 04

Semester: IV

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination (Performance in the Practical Exams)	Total Marks
15	35	50

Course Outcomes:

CO 1: Classify fabrics and incorporate uniform designing for hospitality.
 CO 2: Understand safety and security management in hospitality.
 CO 3: Discover environmental sustainability and green practices.
 CO 4: Identify new trends in housekeeping being incorporated in hotels.

Practicals:

Minimum **15 Individual Practicals** to be conducted during the semester.

1. Identification of Fabrics
 2. Uniform Designing
 3. Different types of accidents in hotels
 4. Common First Aid Situations & Handling Methods
 5. First Aid Demonstration
 6. Situation Handling / Role Plays: Fire, Theft, Bomb-Scare, Death
 7. Firefighting demonstration
 8. Green Certification: Case study
 9. Awareness Program on Environmental Practices: Activity regarding any of 3 R's
 10. Care & maintenance of indoor & outdoor plants
 11. Bonsai making
 12. Potting & Repotting: Nursery Visit
 13. Ergonomics in Housekeeping
 14. Changing Trends: Hotel Visit (**2 practicals – 1 visit, 1 report**)
-

Subject: Rooms Division IV PART 2 THEORY (FRONT OFFICE)

Subject Code: HS 253 (P2) T Vertical: Major Core MJ

Subject Credits: 04 Hours per week: 04

Semester: IV

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination	Total Marks
30	70	100

Course Outcomes:

- CO 1: Understand the Night Audit Process, identify common auditing errors and apply credit monitoring techniques.
- CO 2: Describe personality traits and duties & responsibilities for Guest Relations Executive
- CO 3: Demonstrate effective complaint handling procedure & dealing with unusual situations
- CO 4: Discuss the role and functions of Bell Desk & Concierge.
- CO 5: Identify the role of sales & marketing in enhancing hotel performance.
- CO 6: Determine the concept & importance of MICE (Meetings, Incentives, Conferences & Events) and SMERF (Social, Military Educational, Religious and Fraternal).

		Hours	Marks
Chapter 1	NIGHT AUDIT	12	20
1.1	Introduction to Night Audit		
1.2	Role of a Night Auditor		
1.3	Night Audit Process: Complete Outstanding Postings, Reconcile Room Status Discrepancies, Verify Room Rates, Balance All Departmental Accounts, Verify No Show Reservations, Post Rooms Rates & Taxes, Prepare Reports, Prepare Cash Receipts for Deposit, Perform System Backup Routine, Distribute Reports		
1.4	Errors during Night Audit: Pickup errors, Transposition error, Out of balance		
1.5	Credit Balance Management: Credit Monitoring, High Balance Report, Charge Privileges		
1.6	Importance of use of software in night audit		
Chapter 2	GUEST RELATIONS	08	11
2.1	Hospitality Desk		
2.2	Personality traits for Guest Relations Executive (GRE)		
2.3	Duties & Responsibilities for GRE		
2.4	Records Maintained: Guest History Card (GHC)		
Chapter 3	SITUATION HANDLING	10	18
3.1	Types of Complaints: Maintenance Related, Service Related, Attitudinal, Unusual		
3.2	Complaint Handling Procedure		
3.3	Case studies for Complaint Handling		
3.4	Role of Front Office department in dealing with unusual		

3.5	situations – Fire, Theft, Bomb-Scare, Death Understanding guest expectations and complaint triggers		
Chapter 4	BELL DESK & CONCIERGE	10	18
4.1	Role and Functions of Bell Desk: Check in, during stay and Check out		
4.2	Concept of Concierge: Significance, Les Clefs d'Or		
4.3	Role and Functions of Concierge in Modern Hotels		
4.4	Difference between Bell Desk and Concierge		
4.5	E-concierge		
Chapter 5	SALES & MARKETING DEPARTMENT	10	18
5.1	Organizational Chart		
5.2	Role of Sales & Marketing Department		
5.3	Sales Calls & Familiarization Tours (Fam. Tours)		
5.4	Co-ordination with Front Office		
5.5	Making of a Sales and Marketing and Advertising Plan		
Chapter 6	MICE & SMERF	10	15
6.1	Concept & Importance of MICE (Meetings, Incentives, Conferences & Events)		
6.2	Planning for MICE		
6.3	Concept & Importance of SMERF (Social, Military Educational, Religious and Fraternal)		
6.4	Characteristics and unique need of each SMERF group		
6.5	Importance of targeting MICE & SMERF		
	Total	60	100

Note:

Glossary: Students should be familiar with the glossary of terms pertaining to above mentioned topics.

Assignments: Any FOUR assignments to be submitted by students by the end of the semester.

Sr. No.	Assignment Topic	Assignment Type	Reference Chapter	Expected learning outcome with reference CO number
1	Prepare and present a chart on Night Audit Process	Chart Presentation	Chapter 1	Students will understand and effectively present the night audit process CO 1
2	Note down a detailed conversation between GRE and Guest showcasing any of GRE duties & responsibilities	Written assignment / Presentation / Video	Chapter 2	Students will showcase the application of duties & responsibilities of GRE through mock conversation CO 2
3	Prepare a SOP for complaint handling procedure	Written assignment / Presentation	Chapter 3	Students will learn to create effective SOPs showing efficient handling of guest complaints in hospitality CO 3
4	Prepare a presentation showing functioning of Les Clefs d'Or	PPT Presentation	Chapter 4	Students will understand & present functioning of Les Clefs d'Or CO 4

5	Comparative analysis of advertisement of same hotel in 2 different media (eg. social media, outdoor, print, etc.)	Research and Presentation	Chapter 5	Students will compare & analyze a hotel's advertisements to understand marketing strategies and target audiences CO 5
6	Comparative study of any two MICE destinations	Research and Presentation	Chapter 6	Students will compare two MICE destinations, understanding their strengths, weaknesses, and unique event management features CO 6

References:

1. Front office Management by S. K. Bhatnagar.
 2. Hotel front Office Training Manual by Sudhir Andrews.
 3. Principles of Hotel Front Office Operations by Sue Baker, P. Bradley, J. Huyton.
 4. Hotel Front Office Operations and Management by Jatashankar R. Tewari.
 5. Hotel Front Office Management by James A Bardi.
 6. Check in Check out: Managing Hotel Operations by Gary Vallen, Jerome Vallen.
 7. Managing Front Office Operations by Michael Kasavana
 8. Meetings, Expositions, Events and Conventions by George G. Fenich
 9. Marketing for Hospitality and Tourism by Philip Kotler, John T Bowen, James C Makens
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Subject: Rooms Division IV PART 2 PRACTICAL (FRONT OFFICE)

Subject Code: HS 253 (P2) P **Vertical:** Major Core MJP

Subject Credits: 02 **Hours per week:** 04

Semester: IV

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination (Performance in the Practical Exams)	Total Marks
15	35	50

Course Outcomes:

- CO 1: Understand the night audit process & reports.
 CO 2: Outline guest relations and complaint handling procedures.
 CO 3: Describe bell desk & concierge services.
 CO 4: Discuss various sales & marketing strategies.

Practicals:

Minimum **15 Individual Practicals** to be conducted during the semester.

1. Night Audit Process
 2. Reports generated during Night Audit Process
 3. Credit Balance Management: Credit Monitoring, High balance Report, Charge Privileges
 4. Guest History Card: format & filling
 5. Hospitality Desk: Role play & activities
 6. Complaint handling techniques and etiquettes
 7. Compliant handling procedures: Role play one from each of the 4 categories (**2 Practicals**)
 8. Bell desk Operation: Check in, During stay and Check out
 9. Concierge & E-concierge: Role play & activities
 10. Sales Calls: Role play & activities (**2 Practicals**)
 11. Prepare an advertising plan for a hotel
 12. MICE (Meetings, Incentives, Conferences & Events) Function Planning
 13. SMERF (Social, Military Educational, Religious and Fraternal) Function Planning
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Subject: Human Resource Management (HRM) in Hospitality Industry

Subject Code: HS 254 A **Vertical:** GE/OE

Subject Credits: 02 **Hours per week:** 02

Semester: IV

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination	Total Marks
15	35	50

Course Outcomes:

- CO 1: Identify the role of human resource management in hospitality, and manpower planning, and basic terminology associated with the same.
- CO 2: Understand the recruitment, selection, and training processes, and its relevance in hospitality.
- CO 3: Determine the importance of employee morale, performance management, and appraisals in hospitality.
- CO 4: Evaluate the unique challenges present in hospitality HRM and how to address them.

		Hours	Marks
Chapter 1	INTRODUCTION TO HUMAN RESOURCE MANAGEMENT & MANPOWER PLANNING IN HOSPITALITY	07	13
1.1	Introduction to the Hospitality Industry: Role in Tourism & World Economy, Leading Hotel Chains Sectors of Hospitality: Hotels, Restaurants & Bars, Tour & Travel Agencies, etc. Introduction to Hospitality Departments & Their Roles and Functions: Front Office, Housekeeping, Food Production, Food & Beverage Service		
1.2	Introduction, Role & Definition of Human Resource Management		
1.3	Functions & Importance of Human Resource Management		
1.4	Manpower Planning: Concept, Benefits & Process, Managing Diversity & Inclusion in the Workforce		
	Concept and Role of Job Analysis, Job Description, and Job Specification in Human Resource Management		
Chapter 2	HUMAN RESOURCE RECRUITMENT & DEVELOPMENT IN HOSPITALITY	08	13
2.1	Recruitment and Selection: Sources of Recruitment & Selection Process		
2.2	Orientation & Induction		
2.3	Training: Need & Importance		
2.4	Training Methods: On-the-Job and Off-the-Job, Upskilling, Reskilling, Digital Platforms for Upskilling, Reskilling & Training		
2.5	Succession Planning: Coaching and Mentoring		

Chapter 3	PERFORMANCE MANAGEMENT & APPRAISALS IN HOSPITALITY	08	13
3.1	Employee Motivation, Engagement and Morale		
3.2	Performance Management: Need & Importance		
3.3	Performance Appraisals: Purpose, Methods, Techniques, and Evaluation Process		
3.4	Concept of Promotion, Demotion & Transfer		
Chapter 4	HUMAN RESOURCE ADMINISTRATION IN HOSPITALITY	07	11
4.1	Compensation: Types - Direct, Indirect, Rewards, Incentives, Perks & Fringe Benefits		
4.2	Trade Unions: Purpose, Function & Structure of Trade Union		
4.3	Grievance Handling: Procedure & Identifying Causes of Grievance		
4.4	Challenges in Hospitality Industry: Industrial Disputes, Recruitment Challenges, Labour Turnover & Retention, Collective Bargaining, Mental Health & Wellbeing, Work-Life Balance & Burnout		
Total		30	50

Note:

Glossary: Students should be familiar with the glossary of terms pertaining to above mentioned topics.

Assignments: Any TWO assignments to be submitted by students by the end of the semester.

Sr. No.	Assignment Topic	Assignment Type	Reference Chapter	Expected learning outcome with reference CO number
1	Create a Job Description for any two hospitality designations as given (Room Attendant, Bell Boy, Bartender, Commis, Steward, Concierge, Guest Relations Executive, Chef de Partie)	Written assignment	Chapter 1	Understanding how to create a job description for hospitality positions CO 1
2	Suggest at least two appropriate training methods suitable for any two of the following hospitality positions and explain why - Room Attendant, Bell Boy, Bartender, Commis, Steward, Concierge, Guest Relations Executive, Chef de Partie	PPT presentation	Chapter 2	Understanding various training methods and their suitability/unsuitability for various job roles in hospitality CO 2
3	Create a comparative analysis of Performance Appraisal techniques in any two hotels.	PPT presentation	Chapter 3	Understanding real world application of appraisal methods in the hospitality CO 3
4	Create, carry out, and analyse a survey of hotel employees in relation to types of compensation offered to them.	PPT presentation	Chapter 4	Understanding different types of compensation utilized by the hospitality industry in real world setting CO 4

References:

1. Human Resource Management by K Aswathappa & Sadhna Dash.
 2. Human Resource Management in Hospitality by Malay Biswas.
 3. Personnel Management by Dr. C.B. Mamoria & S.V. Gankar.
 4. Personnel & Human Resource Management by P. Subba Rao.
 5. Human Resource Management by Garry Dessler & Varkkey.
 6. Human Resource Management by Pravin Durai.
 7. Introduction to Hospitality Management and Tourism by Maheshwari P Verma & Mamta Bhatnagar.
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Subject: Customer Relationship Management (CRM) in Hospitality Industry

Subject Code: HS 254 B **Vertical:** GE/OE

Subject Credits: 02 **Hours per week:** 02

Semester: IV

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination	Total Marks
15	35	50

Course Outcomes:

CO 1: Understand the concepts of Customer Relationship Management (CRM) in Hospitality.

CO 2: Discuss the significance & strategies of CRM in Hospitality.

CO 3: Outline the SOPs and Tools used for CRM in Hospitality.

CO 4: Discover various Customer Retention Strategies in Hospitality.

		Hours	Marks
Chapter 1	INTRODUCTION TO CUSTOMER RELATIONSHIP MANAGEMENT (CRM) IN HOSPITALITY	07	12
1.1	Introduction to the Hospitality Industry: Role in Tourism & World Economy, Leading Hotel Chains Sectors of Hospitality: Hotels, Restaurants & Bars, Tour & Travel Agencies, etc. Introduction to Hospitality Departments & Their Roles and Functions: Front Office, Housekeeping, Food Production, Food & Beverage Service		
1.2	Definition and Concept of Customer Relationship Management		
1.3	Benefits of Customer Relationship Management to Customers & Organizations in Hospitality		
1.4	Identifying your Customer: Types of Customers		
1.5	CRM Cycle: Reaching a Potential Customer, Customer Acquisition, Conversion, Customer Retention, Customer Loyalty		
Chapter 2	CUSTOMER RELATIONSHIP MANAGEMENT STRATEGIES IN HOSPITALITY	07	
2.1	Role & Duties – Customer Relationship Manager, Guest Relationship Executive (GRE)		
2.2	Customer Relationship Management as a Marketing Strategy		
2.3	Introduction to CRM Strategies Customer Satisfaction, Customer Delight, Wow Effect		
2.4	7 C's of CRM – Customer, Cost, Convenience, Communication, Credibility, Connection and Co-creation		

Chapter 3	SERVICE QUALITY - STANDARD OPERATING PROCEDURE (SOPs) IN HOSPITALITY	07	12
3.1	Best Practices of Services in Hospitality: Departmental SOPs		
3.2	Factors determining Customer's Expectations & Reality		
3.3	Digitalizing & Upgrading Customer Relationship Management: Voice Activated Artificial Intelligence (AI) Assistant, Chatbots, Virtual Reality (VR) Tools		
3.4	Hospitality CRM Tools		
Chapter 4	CUSTOMER RETENTION IN HOSPITALITY	09	14
4.1	Customer Retention: Meaning & Importance		
4.2	Strategies for Customer Retention		
4.3	Customer Loyalty & Hospitality Loyalty Programs: Taj InnerCircle (TataNeu), Marriott Bonvoy, Hilton Honors, IndiGo BluChip, Etihad Guest		
4.4	Major Challenges in CRM		
	Total	30	50

Note:

Glossary: Students should be familiar with the glossary of terms pertaining to above mentioned topics.

Assignments: Any TWO assignments to be submitted by students by the end of the semester.

Sr. No.	Assignment Topic	Assignment Type	Reference Chapter	Expected learning outcome with reference CO number
1	Prepare a general plan on how CRM is beneficial to Customers as well as the Organization	Classroom Submission	Chapter 1	Student will learn how CRM is beneficial to its Organization and Customer. CO 1
2	Prepare a Report on operational CRM and Current trends in CRM	Report Submission (Desk Research)	Chapter 2	Student will acquaint the responsibilities of Customer Relationship Manager & how the strategies are framed. CO 2
3	Prepare Departmental SOPs of a hotel considering customer's expectations vs. reality	Report Submission (Field Research)	Chapter 3	Student will get proper insights of how CRM works in the Hospitality Industry, will also gain the knowledge on how to formulate SOPs. CO 3
4.	Prepare a Customer Retention Plan for newly opened Hospitality Business (Eg. Hotel, Restaurant, Travel Agency, etc.) (Field work)	PPT Presentation	Chapter 4	A student can design retention strategy for Hospitality Industry. CO 4
5	Case Study: Reference: Marketing for Hospitality & Tourism by Philip Kotler Case # 3: Disney (Pg No. 601)	PPT Presentation	Overview of the all the chapters	By these realistic cases, students will get better insights of how CRM works in the Hospitality Industry

<p>Case # 6 : In-N-out Burger: Customer Value the old-Fashioned Way (Pg. No. 607)</p> <p>Case # 20 : International Travel Agency (Pg. No. 641)</p> <p><i>Book for reference:</i> https://www.slithm.edu.lk/wp-content/uploads/2022/02/marketing_for_hospitalitytourism.pdf</p>			
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References:

1. Marketing for Hospitality and Tourism by Philip Kotler.
 2. Customer Relationship Management: A Strategic Approach to Marketing by Kaushik Mukherjee.
 3. CRM in Hospitality and Tourism: Textbook for UG & PG Students by Dr. Satvir Singh Dr. Sunil Kumar.
 4. Customer Relationship Management: Concepts and Cases by A. K. Rai.
 5. Customer Relationship Management by G. Shainesh and Jagdish N. Sheth.
 6. Customer Relationship Management (CRM) by Dr. K. Govinda Bhat.
 7. Customer Relationship Management by Francis Buttle and Stan Maklan.
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Subject: Hindi MIL I

Subject Code: AEC 281 HIN

Vertical: MIL

Subject Credits: 02

Hours per week: 02

Semester: III

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination	Total Marks
15	35	50

Subject: Marathi MIL II

Subject Code: AEC 282 MAR

Vertical: MIL

Subject Credits: 02

Hours per week: 02

Semester: III

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination	Total Marks
15	35	50

Subject: Food Production IV (THEORY)**Subject Code: HS 291 T****Vertical: Minor MN****Subject Credits: 02****Hours per week: 02****Semester: IV**

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination	Total Marks
15	35	50

Course Outcomes:

CO 1: Identify, analyze, and apply the authentic ingredients, cultural influences, and modern adaptations of North & Central American cuisines.

CO 2: Understand meat, poultry & fish classification, processing, and cookery techniques, ensuring quality, safety, and culinary innovation.

CO 3: Understand and apply regional European culinary styles, ingredients, and techniques, creating authentic dishes with a focus on cultural context.

CO 4: Understand food laws and consumer rights shaping future food industries.

		Hours	Marks
Chapter 1	NORTH & CENTRAL AMERICAN CUISINE	08	15
1.1	United States of America (USA): Culinary History, African and European Influences, Migration and Cultural Fusion, Indigenous People & Food, Specialty Food & Cuisine (Southern, Barbeque, Cajun, Creole, Tex-Mex, Soul, Diner Kitchen, Health-forward American cuisine)		
1.2	Canada: Culinary History, African and European Influences, Indigenous People & Food		
1.3	Central America (Costa Rica, Guatemala, Panama) & Mexico: Culinary History, African and European Influences, Migration and Cultural Fusion, Indigenous People & Food, Specialty Food & Cuisine (Tacos, Ceviche, Gallo Pinto, Mole, Tamale)		
1.4	Caribbean Islands (Jamaica, Cuba, Dominican Republic): Culinary History, African and European Influences, Indigenous People & Food		
Chapter 2	MEAT, POULTRY & FISH	10	15
2.1	Introduction to Meat & Poultry: Classification, Composition, Factors Affecting Quality		
2.2	Meat Processing & Butchery: Primal And Sub-Primal Cuts, Preservation Methods, Dry Aging, Enzyme Tenderization		
2.3	Cooking Of Meats: Types, Dressing, Cutting, and Cooking Methods, Doneness of Meats		
2.4	Introduction to Fish & Other Seafood: Classification		
2.5	Selection and Storage: Quality Indicators, Storage Techniques, Cleaning and Gutting, Filleting, Skinning, Marinating, Salt Curing & Baking		
2.6	Cooking Methods for Fish & Seafood: Grilling, Poaching, Frying, Steaming, Baking, Ceviche		

Chapter 3	EUROPEAN CUISINE	08	12
3.1	Introduction to European Cuisine: France, Italy, Spain, Germany, United Kingdom, Greece		
3.2	Introduction to Culinary Influences: Overview of European Culinary Traditions, Key Cooking Techniques and Philosophies, Haute Cuisine, Key Historical Influences, Signature Dishes and Techniques, Local Staples and Fresh Ingredients, Latest Trends		
Chapter 4	FOOD LAWS AND CONSUMER PROTECTION	04	08
4.1	Food Safety & Standard (FSS) Act 2006: Introduction, Salient Features, Food Safety & Standards Authority of India (FSSAI)		
4.2	Consumer Rights in Food Safety: Right to safe, informed, and healthy food		
4.3	Food Fraud and Misbranding: Common fraudulent practices and legal remedies.		
4.4	Grievance Redressal Mechanisms: Online complaint portals, Food safety helplines, Growing role of Social Media		
Total		30	50

Note:

Glossary: Students should be familiar with the glossary of terms pertaining to above mentioned topics.

Assignments: Any TWO assignments to be submitted by students by the end of the semester.

Sr. No.	Assignment Topic	Assignment Type	Reference Chapter	Expected learning outcome with reference CO number
1	Create an interactive digital culinary map of North & Central America. Pin key dishes, origin stories, fusion trends, and plating styles	Interactive PDF / GoogleMap / PowerPoint	Chapter 1	Regional food diversity, food fusion, plating visuals, cultural-historical links CO 1
2	Create a Practical Guide on Selection, Storage, and Processing of Fish & Seafood	Report + Practical Demo / video /photo log	Chapter 2	Demonstrate understanding of fish and seafood quality indicators, storage methods, and processing techniques including gutting and marinating CO 2
3	Create a digital travelogue featuring any 5 European cuisines. Highlight signature dishes, modern trends, and sustainability adaptations. Include plating visuals or video plating demo	Digital Travelogue (PDF/ Canva) + Optional video demo	Chapter 3	Regional food knowledge, sustainability trends, plating innovation CO 3
4	Investigate a real-life case of food fraud, misbranding, or consumer complaint in the hospitality industry. Present legal actions taken, brand reputation impact, and ethical resolution strategies	Case Study Report + Infographic	Chapter 4	Legal analysis, brand ethics, customer advocacy CO 4

References:

1. The Professional Chef by The Culinary Institute of America.
 2. Culinaria: United States by Randi Danforth, Peter Feierabend (American regional cooking, indigenous dishes, and food history).
 3. Mexico: The Cookbook by Margarita Carrillo Arronte.
 4. Canadian Cuisine: A Culinary Journey by Anita Stewart (Canadian regional flavors, history, and indigenous cooking).
 5. Essentials of North American Cuisine by Susan Curtis (Traditional and contemporary dishes from the U.S., Canada, and Mexico).
 6. Meat Science: An Introductory Text by P.D. Warriss.
 7. The Meat Buyer's Guide by North American Meat Institute (NAMI).
 8. Fish Processing Technology by George M. Hall.
 9. Seafood Handbook: The Comprehensive Guide to Sourcing, Buying & Preparation by Seafood Business Editors.
 10. European Gastronomy into the 21st Century by Cailein Gillespie & John Cousins.
 11. FSSAI Food Safety Compliance & Standards by CA Rajkumar S. Adukia.
 12. Consumer Protection in Hospitality, Travel & Tourism by Dr. Gulshan Soni.
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Subject: Food & Beverage Service IV (THEORY)

Subject Code: HS 292 T

Vertical: Minor MN

Subject Credits: 02

Hours per week: 02

Semester: IV

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination	Total Marks
15	35	50

Course Outcomes:

CO 1: Identify the types and popular brands of spirits.

CO 2: Classify different types of liqueurs & their brands.

CO 3: Identify various glasses, equipment and accessories used in cocktail making as well as cocktail preparation techniques.

CO 4: Discuss beverage service standards and responsible beverage service practices.

CO 5: Discuss cigars and cigarettes and their brands.

		Hours	Marks
Chapter 1	INTRODUCTION TO SPIRITS	07	12
1.1	History & Origin of Spirits: Evolution of Distillation And Spirit Production, Cultural Significance of Spirits Across The World		
1.2	Distillation Methods: Pot Still & Patent Still Distillation		
1.3	Types of Spirits Whisky: Types and brands – Scotch, Irish, Bourbon, Japanese Brandy: Types and brands – Cognac, Armagnac Rum: Types and brands – White, Dark, Spiced Gin: Types and brands – London Dry, Holland's Tequila: Types and brands – Blanco, Reposado, Añejo Vodka: Types and brands – Russian, Polish, Flavoured Other Spirits: Absinthe, Mezcal, Aquavit Indian spirits: Overview & Cultural and regional significance of Indian distilleries and spirits		
Chapter 2	LIQUEURS	05	08
2.1	Introduction to Liqueurs: Definition, Classification (Fruit-Based, Cream-Based, Herbal)		
2.2	Production Methods: Infusion, Maceration		
2.3	Popular Brands		
Chapter 3	COCKTAILS	06	10
3.1	Introduction to Cocktails: History and evolution of cocktails		
3.2	Glassware, Accessories & Equipment used in Making Cocktails		
3.3	Methods: Building, Stirring, Shaking, Blending, Muddling		
3.4	Types of Classic Cocktails: Martinis, Old Fashioned, Margaritas, Mojitos, Long Island Iced Teas (LIITs), Gin & Tonics (GnTs), Collins, Cobblers, Juleps		
3.5	Rules of Making Cocktails: Do's and Don'ts of making cocktails		

Chapter 4	BEVERAGE SERVICE STANDARDS	05	08
4.1	Service Techniques: Temperature Principles, Glassware Science, Pouring techniques for spirits – Traditional and Latest Trends (Slam Cocktails, Infused Drinks, Smoked Beverages, Use of Dry Ice in service, etc.)		
4.2	Guest Interaction: Understanding Guest Preferences, Upselling and Cross-Selling Beverages, Promotional Techniques and tools used for attracting guests		
4.3	Responsible Beverage Service: Alcohol laws and regulations in India, Promoting responsible drinking, Handling intoxicated guests		
Chapter 5	CIGARS & CIGARETTES	07	12
5.1	Introduction and Evolution of Cigars & Cigarettes		
5.2	Parts of Cigar (Filler, Binder, Wrapper)		
5.3	Brands of Cigar		
5.4	Parts of Cigarettes (Filler, Wrapper, Filter, Filter Wrap)		
5.5	Types of Cigarettes: Regular, Flavoured, Menthol, Bidi, E-Cigarettes, Herbal Cigarettes, Nicotine-Free		
5.6	Brands of Cigarettes (International & Indian)		
Total		30	50

Note:

Glossary: Students should be familiar with the glossary of terms pertaining to above mentioned topics.

Assignments: Any TWO assignments to be submitted by students by the end of the semester.

Sr. No.	Assignment Topic	Assignment Type	Reference Chapter	Expected learning outcome with reference CO number
1	Presentation on Pot Still & Patent Still methods of distillation	Presentation / Debate	Chapter 1	Students will present on the 2 methods of distillation. This can be a group assignment as a debate defending which is better and why CO 1
2	Presentation Chart of any 10 Liqueurs	Presentation / Written assignment	Chapter 2	Students will prepare a Chart on at least 10 liqueurs mentioning Brand Name, Base Spirit, Flavour(s) and Country of Origin CO 2
3	Prepare a presentation on various glasses, equipment and accessories used in cocktail making	PPT presentation	Chapter 3	Students will understand and be acquainted with various glasses, equipment and accessories used in cocktail making CO 3
4	Create a short video demonstrating & comparing traditional and any 1 new trend in pouring techniques for the same beverage	Video/ Presentation	Chapter 4	Students will learn beverage service standards CO 4

5	Prepare a chart on the various types of Cigarettes available in the market	Research / presentation	Chapter 5	Helps to understand types & brands of cigarettes CO 5
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References:

1. Food & Beverage Service by Lillicrap & Cousins.
 2. Modern Restaurant Service by John Fuller.
 3. Food & Beverages Service Training Manual by Sudhir Andrews.
 4. Bar & Beverage Book by Costas Katsigris, Mary Porter, Thomas.
 5. Professional Guide to Alcoholic Beverages by Lipinski.
 6. Alcoholic Beverages by Lipinski & Lipinski.
 7. Bartenders Guide by BD & L.
 8. Food & Beverage Service by R. Singaravelavan.
 9. Spirits and Liqueurs in the Kitchen: A Practical Kitchen Handbook by Stuart Walton, Norma Miller.
 10. Ultimate Cigar Book by Richard Carleton Hacker.
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Subject: Rooms Division IV (THEORY)**Subject Code: HS 293 T****Vertical: Minor MN****Subject Credits: 02****Hours per week: 02****Semester: IV**

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination	Total Marks
15	35	50

Course Outcomes:

CO 1: Demonstrate awareness of safety & security procedures followed.

CO 2: Apply environmentally sustainable practices in house-keeping operations.

CO 3: Discover new trends in house-keeping.

CO 4: Understand the Night Audit Process.

CO 5: Demonstrate effectively maintaining guest relations & handling complaints.

CO 6: Identify the role of sales & marketing in enhancing hotel performance.

		Hours	Marks
Chapter 1	PRINCIPLES OF SAFETY AND SECURITY	05	08
1.1	Meaning of Safety and Security		
1.2	Role of Housekeeping department in Safety and Security of Guest and Hotel Property		
1.3	Meaning & Types of Accidents		
1.4	Importance of First-Aid		
1.5	Standard Content of a First-Aid box		
1.6	Do's and Don'ts while giving first-aid		
Chapter 2	ENVIRONMENTAL PRACTICES IN HOUSEKEEPING	05	08
2.1	Introduction to Green Housekeeping		
2.2	3Rs: Reduce, Reuse and Recycle		
2.3	Energy Conservation in Housekeeping Operations		
2.4	Waste Reduction Programs		
2.5	Recycling of Materials		
Chapter 3	CHANGING TRENDS IN HOUSEKEEPING	04	06
3.1	Single Window Service		
3.2	Women-Only Floor		
3.3	Changing Trends in Amenities		
3.4	New Trends in Accommodation: Pet Friendly hotels, Home stay, Villa, Time share, Hostel Stays, Staycation, Camping and Glamping, Hybrid hotels		
Chapter 4	NIGHT AUDIT	06	12
4.1	Introduction to Night Audit		
4.2	Role of a Night Auditor		
4.3	Night Audit Process: Complete Outstanding Postings, Reconcile Room Status Discrepancies, Verify Room Rates, Balance All Departmental Accounts, Verify No Show Reservations, Post Rooms Rates & Taxes, Prepare Reports, Prepare Cash Receipts for Deposit, Perform System Backup Routine, Distribute Reports		

Chapter 5	GUEST RELATIONS AND COMPLAINT HANDLING	05	08
5.1	Hospitality Desk		
5.2	Personality traits for Guest Relations Executive (GRE)		
5.4	Types of Complaints: Maintenance Related, Service Related, Attitudinal, Unusual		
5.5	Complaint Handling Procedure		
Chapter 6	SALES & MARKETING DEPARTMENT	05	08
6.1	Organizational Chart		
6.2	Role of Sales & Marketing Department		
6.3	Sales Calls & Familiarization Tours (Fam. Tours)		
6.4	Concept of MICE (Meetings, Incentives, Conferences & Events)		
6.5	Concept of SMERF (Social, Military Educational, Religious and Fraternal)		
Total		30	50

Note:

Glossary: Students should be familiar with the glossary of terms pertaining to above mentioned topics.

Assignments: Any TWO assignments to be submitted by students by the end of the semester.

Sr. No.	Assignment Topic	Assignment Type	Reference Chapter	Expected learning outcome with reference CO number
1	Presentation of any 1 type of accident explaining its causes and preventive measures	PPT presentation	Chapter 1	Students will understand various accidents that commonly occur in hotels and the preventive measures CO 1
2	Presentation on Ecotel and Eco-friendly practices followed by hotels (visit any nearby hotel to gain the information)	Visit and report submission	Chapter 2	Students will understand Ecotel concepts and identify eco-friendly hotel practices CO 2
3	Present any two new trends of accommodation (Group Activity)	PPT Presentation	Chapter 3	Students will identify, analyse, and present two emerging accommodation trends, covering concept, scope, target market, benefits, and comparisons CO 3
4	Prepare and present a chart on Night Audit Process	Chart Presentation	Chapter 4	Students will understand and effectively present the night audit process CO 4
5	Note down a detailed conversation between GRE and Guest showcasing any of GRE duties & responsibilities	Written assignment / Presentation / Video	Chapter 5	Students will showcase the application of duties & responsibilities of GRE through mock conversation CO 5
6	Comparative analysis of advertisement of same hotel in 2 different media (eg. social media, outdoor, print, etc.)	Research and Presentation	Chapter 6	Students will compare & analyze a hotel's advertisements to understand marketing strategies and target audiences CO 6

References:

1. Hotel Housekeeping and operations by G Raghubalan, Smritee Raghubalan.
 2. Housekeeping Training Manual by Sudhir Andrews.
 3. Managing Housekeeping Operations by Aleta Nitchke & William Frye of American. Hotel & Lodging Educational Institute.
 4. Hotel, Hostel & Hospital Housekeeping by Brenson & Lanox.
 5. Professional Management of Housekeeping Operations by Thomas J A Jones.
 6. Front office Management by S. K. Bhatnagar.
 7. Hotel front Office Training Manual by Sudhir Andrews.
 8. Principles of Hotel Front Office Operations by Sue Baker, P. Bradley, J. Huyton.
 9. Hotel Front Office Operations and Management by Jatashankar R. Tewari.
 10. Hotel Front Office Management by James A Bardi.
 11. Check in Check out: Managing Hotel Operations by Gary Vallen, Jerome Vallen.
 12. Managing Front Office Operations by Michael Kasavana.
 13. Meetings, Expositions, Events and Conventions by George G. Fenich
 14. Marketing for Hospitality and Tourism by Philip Kotler, John T Bowen, James C Makens
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Subject:	Food Science, Nutrition & Menu Management (THEORY)		
Subject Code:	HS 311 T	Vertical:	Major MJE
Subject Credits:	02	Hours per week:	02
Semester:	IV		

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination	Total Marks
15	35	50

Course Outcomes:

- CO 1: Outline the importance of maintaining hygiene practices in food handling and to impart basic nutrition knowledge.
- CO 2: Understand different nutritional components and their proportions to remain healthy
- CO 3: Summarize balanced diet essentials and learn the caloric values of food.
- CO 4: Discuss importance of diet in recovering from common diseases and menu planning essentials.
- CO 5: Create awareness on the uses of modern trends in nutrition.

		Hours	Marks
Chapter 1	IMPORTANCE OF HYGIENE AND SANITATION IN FOOD INDUSTRY	06	10
1.1	Hygiene and Sanitation Practices Contamination & Cross Contamination, Sources of contamination, Safe handling of food, Danger zone		
1.2	Browning – Desirable & Undesirable		
1.3	Spoilage Indicators in Raw and Cooked Food		
1.4	Food and Water Borne Infections – E.coli, Salmonellosis, Tuberculosis (TB), etc.		
1.5	Food Infection vs Food Poisoning		
Chapter 2	MACRO NUTRIENTS - PART 1	08	15
2.1	Proteins – Basic Qualities, Nutrition, Rich Foods, Recommended Dietary Allowance (RDA) & Calories		
2.2	Carbohydrates – Basic Qualities, Nutrition, Rich Foods, RDA & Calories		
2.3	Fats – Basic Qualities, Nutrition, Rich Foods, RDA & Calories		
Chapter 3	MACRO NUTRIENTS - PART 2	06	10
3.1	Fibre – Basic Qualities, Nutrition, Rich Foods, RDA & Calories		
3.2	Water – Basic Qualities, Nutrition, Rich Foods, RDA & Calories		
3.3	Micro Nutrients – Water & Fat Soluble Vitamins, Trace Elements		
3.4	Prebiotics & Probiotics – Sources, Uses, Benefits		
3.5	Food Pyramid – Balanced Diet		

Chapter 4	MENU PLANNING WITH CALORIE COUNT CALCULATIONS	06	10
4.1	Purpose and Procedure for Calorie Calculations for a Specific Menu		
4.2	Essentials for Planning a Full Day Menu: For healthy teenager - male/female, For healthy adult - male/female		
4.3	Special Diet Plans for Various Ailments - High Blood Pressure (BP), High Cholesterol, Diabetes, Obesity, Diarrhea		
4.4	Diet Balancing - Vegetarian, Vegan, Jain, Lactose Intolerance, Gluten Free Diet, Keto		
Chapter 5	MODERN TRENDS IN NUTRITION	04	05
5.1	Mindful Eating: 80:20 Rule		
5.2	Healthy Snacking: Dry Fruits, Fresh Fruits		
5.3	Common Nutrition Myths		
5.4	Reading Labels: On Packaged Food & Beverages		
5.5	Food Adulterants: Understanding & Simple Testing for Salt, Sugar, Coriander Powder, Dry Whole Red Chilies, Mustard Seeds, Black Peppercorn, Semolina, Ghee, Paneer, Milk		
5.6	Nutrition Apps: Use of Available Apps in Market like Chronometer, Fooducate, Myfitnesspal, Mynetdairy		
Total		30	50

Note:

Glossary: Students should be familiar with the glossary of terms pertaining to above mentioned topics.

Assignments: Any TWO assignments to be submitted by students by the end of the semester.

Sr. No.	Assignment Topic	Assignment Type	Reference Chapter	Expected learning outcome with reference CO number
1	Do's and Don'ts on safe food handling of raw and cooked food to prevent spoilage and cross contamination	PPT	Chapter 1	To inculcate habit of maintaining hygiene practices in food handling. CO 1
2	Create a functional chart of the food pyramid and its essential elements.	Chart Work	Chapter 2 & 3	To impart knowledge on balanced diet essentials CO 2 & CO 3
3	Plan a full day menu for healthy adult male/female.	Submission in written assignment form	Chapter 4	To understand different nutritional components and their proportions to remain healthy CO 4
4	Presentation of latest trends in health and nutrition	PPT	Chapter 5	Class can be divided in groups to cover different trends CO 5
5	Prepare a report and submit recommended changes required for self to maintain a healthier life with the use of apps such as Chronometer, Fooducate, Myfitnesspal, Mynetdairy	PPT	Chapter 5	To observe how the usage of apps and their AI guide people on how to live healthier lives CO 5

References:

1. Nutrition and Dietetics by Shubhangi Joshi.
2. Food Hygiene and Nutrition by Sunetra Roday.
3. Food Science and Nutrition by Sunetra Roday.
4. Catering Science and Food Safety by Dr. Asmita Thaokar & Sumitra Deshmukh.
5. Home Science & Nutrition - text book for Vocational Home Science Course.
6. AI-Powered Nutrition: Transforming Your Diet with Artificial Intelligence (Kindle Edition) by Andrew Jonathan.
7. Eating Smart - Nutritional Intelligence: AI-Assisted Meal Planning for the 50+ Generation: Benefits of AI-Assisted Meal Planning for Older Adults (Kindle Edition) by Chris Mat.

Research Paper:

1. Artificial intelligence in food and nutrition evidence: The challenges and opportunities by Regan L Bailey , Amanda J MacFarlane , Martha S Field , Ilias Tagkopoulos , Sergio E Baranzini , Kristen M Edwards , Christopher J Rose , Nicholas J Schork , Akshat Singhal , Byron C Wallace - *PNAS Nexus*, Volume 3, Issue 12, December 2024, Page 461, <https://doi.org/10.1093/pnasnexus/pgae461> - Published: 15 October 2024.
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Subject:	Food Science, Nutrition & Menu Management (PRACTICAL)		
Subject Code:	HS 311 P	Vertical:	Major MJEP
Subject Credits:	02	Hours per week:	04
Semester:	IV		

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination (Performance in the Practical Exams)	Total Marks
15	35	50

Course Outcomes:

- CO 1: Understand basic nutrition.
 CO 2: Discover balanced diet essentials.
 CO 3: Outline importance of diet in recovering from common diseases.
 CO 4: Recognize the caloric values of food and balancing healthy diets on individual needs.
 CO 5: Identify right choices in menu making with balanced nutrition.
 CO 6: Incorporate the uses of modern trends in our diets.

Practicals:

Minimum **15 Individual Practicals** to be conducted during the semester.

- Best practices in food handling
- Avoiding Contamination & Cross Contamination (usage of different color-coded cutting boards, different storage containers for cooked & raw food, etc)
- Standard Operating Procedure (SOPs) in cooking and serving areas to ensure optimum food hygiene
- Plan a full day menu for healthy teenager - male & female
- Plan a full day menu for healthy adult - male & female
- Plan a special diet menu for patient suffering from high BP
- Plan a special diet menu for patient suffering from diabetes
- Plan a special diet menu for patient suffering from obesity
- Plan a special diet menu for a healthy adult following a vegan diet
- Plan a special diet menu for a healthy adult following a vegetarian diet
- Plan a special diet menu for a healthy adult following a lactose intolerant & gluten-free diet
- Reading and comparing food labels of similarly packed food/beverages of different brand names
- Enlist healthy snacks for restrictive diets: Obesity, Diabetes, High Cholesterol, Jain, Vegetarian, Vegan, Lactose intolerant – at least 5 each
- Enlist protein and carbohydrate dense foods: vegetarian, non-vegetarian, vegan options – at least 5 each
- Testing and identifying the food adulterants found in commonly used ingredients: salt, sugar, coriander powder, dry whole red chilies, mustard seeds, black peppercorn, semolina, ghee, paneer, milk

Subject:	Functional & Therapeutic Beverages (THEORY)		
Subject Code:	HS 312 T	Vertical:	Major MJE
Subject Credits:	02	Hours per week:	02
Semester:	IV		

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination	Total Marks
15	35	50

Course Outcomes:

- CO 1: Understand the definition, classification, and importance of functional and therapeutic beverages, including their health benefits.
- CO 2: Describe various herbal and flower-infused beverages, their ingredients, preparation methods, and health benefits.
- CO 3: Identify different fruit and vegetable-based functional beverages and explain their nutritional applications.
- CO 4: Evaluate the role of milk-based and plant-based beverages in promoting health and wellness.
- CO 5: Recognize the types and benefits of beverages tailored for special diets including diabetic-friendly, low-calorie, weight management, energy and sports drinks.

		Hours	Marks
Chapter 1	INTRODUCTION TO FUNCTIONAL & THERAPEUTIC BEVERAGES	06	10
1.1 Definition, Concept, and Importance 1.2 Historical Evolution and Global Perspective 1.3 Nutritional and Health Aspects Key Nutrients: Vitamins & Minerals, Herbal Extracts, Antioxidants & Phytochemicals 1.4 Health Benefits: Digestive Health, Immune Support, Stress Relief, Detoxification 1.5 Classification of therapeutic beverages Functional Purpose: Immunity-boosting, Detoxifying, Energy-enhancing, etc. Primary Ingredients: Herbal, Fruit-based, Dairy-based, Plant-based, Fermented. Target Demographic: Diabetic-friendly, Athletic performance, Wellness and spa use.			
Chapter 2	HERBAL AND FLOWER INFUSED BEVERAGES	06	10
2.1 Herbal Teas - Peppermint Tea, Lemongrass Tea, Basil (Tulsi) Tea 2.2 Ayurvedic Kadhas - Tulsi Kadha, Ashwagandha Kadha, Cinnamon and Clove Kadha, Neem Kadha, Amla Kadha 2.3 Flower Infusions: Chamomile, Hibiscus, Rose, Elderflower, Lavender 2.4 Preparation Techniques and Benefits: Infusion, Decoction, Straining and Serving			

Chapter 3	FRUIT AND VEGETABLE BASED FUNCTIONAL BEVERAGES	06	10
3.1	Fresh Fruit Juices: Watermelon, Citrus mix, Grape, Apple, Pomegranate		
3.2	Fruit Infusions: Lemon Infusion, Peach Infusion, Berry Infusions, Orange Infusion, Pomegranate Infusion, Green Apple Infusion		
3.3	Cold-pressed Juices: Green Juice, Beetroot Juice, Carrot-Orange-Ginger Juice, Amla-Ginger Juice		
3.4	Smoothies: Green Smoothie, Turmeric-Ginger Shot, Banana-Oat Smoothie		
3.5	Fermented drinks: Soma, Kvass, Khajurasava, Kombucha		
Chapter 4	MILK AND PLANT-BASED NUTRITIONAL BEVERAGES	04	08
4.1	Milk, Turmeric Milk (Golden Milk), Flavoured Milk - Nutritional Benefits, Functional Enhancements, Therapeutic Uses		
4.2	Plant-Based (Vegan Alternatives) - Almond Milk, Oat Milk, Soy Milk, Coconut Milk Nutritional Benefits, Functional Enhancements, Therapeutic Uses		
4.3	Probiotic Drinks – Lassi, Buttermilk (Chaas), Kefir Nutritional Benefits, Functional Enhancements, Therapeutic Uses		
Chapter 5	BEVERAGES FOR SPECIAL DIETS AND WELLNESS	08	12
5.1	Diabetic-Friendly Drinks – Apple Cider Vinegar Drink, Amla (Indian Gooseberry) Juice, Bitter Gourd (Karela) Juice, Fenugreek Seed Water		
5.2	Low-sugar/Low-calorie Drinks – Chia Seed Water, Basil (Tulsi) Infused Water, Cucumber-Mint Water, Detox Lemon-Cinnamon Water		
5.3	Beverages for Weight Management – Cumin (Jeera) Water, Cinnamon-Honey Tea, Green Tea, Ginger-Lemon Tea		
5.4	Hydration-focused Drinks for Athletes or Spa Menus - Electrolyte Water, Chia Fresca, Cucumber-Celery Juice, Aloe Vera Juice (diluted)		
5.5	Energy and Sports Beverages - Rehydration and Electrolyte Balance, Muscle Recovery, Energy Boost, Support for Recovery, Mental Alertness		
5.6	Natural Energy Beverages - Somarasa (Rigveda), Madhu (Ayurveda & Upanishads), Chia Fresca		
	Total	30	50

Note:

Glossary: Students should be familiar with the glossary of terms pertaining to above mentioned topics.

Assignments: Any TWO assignments to be submitted by students by the end of the semester.

Sr. No.	Assignment Topic	Assignment Type	Reference Chapter	Expected learning outcome with reference CO number
1	Define and classify functional and therapeutic beverages. Explain their health benefits.	Descriptive/ Essay	Chapter 1	Understand the scope, classification, and health impacts of therapeutic beverages CO1
2	Comparative analysis of herbal teas and Ayurvedic kadhas with health benefits	Comparative Study/ Short Notes	Chapter 2	Identify and differentiate types of herbal drinks and their wellness properties CO2
3	Prepare a detailed chart showing different fruit- and vegetable-based beverages along with their functions	Chart/ Tabular Assignment	Chapter 3	Recognize ingredient use and nutritional roles in juice- and smoothie-based drinks CO3
4	Research on plant-based milk alternatives and their health implications	Research-Based Assignment	Chapter 4	Evaluate the significance of vegan and probiotic beverages in a healthy diet CO4
5	Present an overview on energy and sports beverages and their roles in fitness	Presentation/ Report	Chapter 5	Assess benefits of energy drinks in hydration, recovery, and alertness CO5

References:

1. Functional and Medicinal Beverages by Alexandru Grumezescu, Alina Maria Holban.
 2. Functional Foods: Principles and Technology by M. Guo.
 3. Handbook of Functional Beverages and Human Health by Fereidoon Shahidi, Cesarettin Alasalvar.
 4. Fermented Beverage Production by Andrew G.H. Lea, John R. Piggott.
 5. Beverage Impacts on Health and Nutrition by Ted Wilson, Norman J. Temple.
 6. A Modern Herbal by Maud Grieve.
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Subject:	Functional & Therapeutic Beverages (PRACTICAL)		
Subject Code:	HS 312 P	Vertical:	Major MJEP
Subject Credits:	02	Hours per week:	04
Semester:	IV		

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination (Performance in the Practical Exams)	Total Marks
15	35	50

Course Outcomes:

- CO 1: Demonstrate appropriate techniques in beverage preparation and operation of relevant equipment with hygiene and safety practices.
- CO 2: Develop a variety of herbal teas, flower infusions, and Ayurvedic kadhas.
- CO 3: Create functional beverages using fruits and vegetables including juices, smoothies, and fermented drinks.
- CO 4: Identify special diet beverages such as diabetic-friendly and weight management drinks.
- CO 5: Outline and design a wellness beverage menu integrating aesthetic presentation and nutritional goals.

Practicals:

Minimum **15 Individual Practicals** to be conducted during the semester.

1. Beverage Preparation Techniques and Equipment with hygiene and safety practices
2. Preparation of Herbal Teas (Peppermint Tea, Lemongrass Tea, Basil (Tulsi) Tea)
3. Preparation of Ayurvedic kadhas (Tulsi Kadha, Ashwagandha Kadha. Cinnamon and Clove Kadha, Neem Kadha, Amla Kadha)
4. Preparation of Flower infusion teas (Peppermint Tea, Lemongrass Tea, Basil (Tulsi) Tea)
5. Preparation of Fresh Fruit Juices (Watermelon, Citrus mix, Grape, Apple, Pomegranate)
6. Preparation of Fruit Infusion Drinks (Lemon Infusion, Peach Infusion, Berry Infusions, Orange Infusion, Pomegranate Infusion, Green Apple Infusion)
7. Preparation of Smoothies (Green Smoothie, Turmeric-Ginger Shot, Banana-Oat Smoothie)
8. Preparation of Fermented drinks (Soma, Kvass, Khajurasava, Kombucha)
9. Preparation of Milk, Turmeric Milk (Golden Milk), Flavoured Milk
10. Preparation of Probiotic Drinks (Lassi, Buttermilk (Chaas), Kefir)
11. Preparation of Diabetic-friendly drinks (Apple Cider Vinegar Drink, Amla (Indian Gooseberry) Juice, Bitter Gourd (Karela) Juice, Fenugreek Seed Water)
12. Preparation of Low-sugar/Low-calorie drinks (Chia Seed Water, Basil (Tulsi) Infused Water, Cucumber-Mint Water, Detox Lemon-Cinnamon Water)
13. Preparation of Beverages for weight management (Cumin (Jeera) Water, Cinnamon-Honey Tea, Green Tea, Ginger-Lemon Tea)
14. Preparation of Natural Energy Beverages (Somarasa (Rigveda), Madhu (Ayurveda & Upanishads), Chia Fresca)
15. Planning of Wellness Beverage Menu

Subject: Facility Management and Sustainability Practices (THEORY)

Subject Code: HS 313 T **Vertical:** Major MJE

Subject Credits: 02 **Hours per week:** 02

Semester: IV

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination	Total Marks
15	35	50

Course Outcomes:

- CO 1: Understand the basics of Facility Management and Sustainability and their significance in the hospitality industry.
- CO 2: Demonstrate Facility Management processes and structure to enhance service and efficiency.
- CO 3: Analyze sustainability practices in energy management in hospitality.
- CO 4: Analyze sustainability practices in water, and waste management to improve environmental performance.
- CO 5: Create a sustainability plan with sourcing and procurement strategies for hospitality facility management.

		Hours	Marks
Chapter 1	INTRODUCTION TO FACILITY MANAGEMENT AND SUSTAINABILITY	06	10
1.1	Concept of Facility Planning and Facility Management		
1.2	Opportunities for Facility Management in the Hotel Industry		
1.3	Responsibilities of Facility Department		
1.4	Role and Responsibilities of Facility Manager		
1.5	Meaning and Importance of Sustainability in Facility Management		
1.6	Key Principles of Sustainable Facility Management: Resource Efficiency, Waste Reduction, Stakeholder Engagement, Continual Improvement		
1.7	Four Pillars of Sustainable Facility Management: People, Process, Building, Technology		
Chapter 2	PROCESSES IN FACILITY MANAGEMENT ORGANIZATIONS	04	06
2.1	Importance of Standard Operating Procedures and Operating Manuals in Hotel Operations		
2.2	Importance & Requirements of Work Flow		
2.3	Process of Facility Planning		
2.4	Inclusive Facilities and Special Considerations: Physically Challenged Persons, Single Woman Travelers, Sustainability and Future-readiness		

Chapter 3	ENERGY MANAGEMENT	06	10
3.1	Concept of Energy Management Systems (EMS)		
3.2	Benefits and Challenges of EMS		
3.3	Energy Pricing – Cost Control and Electrical Bills		
3.4	Energy Efficient Technologies used in Hotels		
3.5	Energy Audits and Benchmarking: Meaning and Significance in Hotels		
3.6	Concept of Building Management Systems (BMS)		
3.7	Heating, Ventilation, and Air Conditioning (HVAC): Factors Influencing Building Comfort		
Chapter 4	WATER MANAGEMENT AND WASTE MANAGEMENT PRACTICES IN HOTEL	06	10
4.1	Water Conservation Practices Adopted in Hotels: Water Saving Fixtures, Time Control Drip Irrigation		
4.2	Concept of Rainwater Harvesting, Greywater Recycling and Hydro Farming		
4.3	Water Audits: Meaning and Significance of Water Audit in Hotel Industry		
4.4	Waste Reduction Strategies: Zero Waste Initiatives in Hotels		
4.5	Waste Management Systems		
4.6	Waste Audits and Classification		
Chapter 5	SUSTAINABILITY PRACTICES IN HOTELS	08	14
5.1	Renewable Energy: Solar, Wind, Hydro		
5.2	Local Sourcing and Farm-to-Table Practices: Importance of adopting the culture		
5.3	Eco-Friendly Materials and Sustainable Cleaning products used in hotels		
5.4	Supplier Selection and Evaluation		
5.5	Staff Training and Engagement		
5.6	Importance and Role of Guest Awareness Practices in the Sustainability Plan		
5.7	Role of Technology in Sustainability		
5.8	Community Engagement and Corporate Social Responsibility (CSR): Local Community Support, Charitable Initiatives, CSR		
Total		30	50

Note:

Glossary: Students should be familiar with the glossary of terms pertaining to above mentioned topics.

Assignments: Any TWO assignments to be submitted by students by the end of the semester.

Sr. No.	Assignment Topic	Assignment Type	Reference Chapter	Expected learning outcome with reference CO number
1	Presentation on any one Facility Management Company	Visit and Report Presentation	Chapter 1	Students will understand operations, services, and management strategies of a chosen Facility Management Company CO1
2	Prepare a report on inclusive facilities and special considerations being offered by any one hotel	Group of 2-3 students to present on any one Hotel	Chapter 2	Students will learn to identify, analyze, and report on inclusive facilities and special considerations provided by a specific hotel CO2
3	Prepare a report on a 3-month residential electricity bill; paying special attention to unit consumption, rate slabs and billing calculation	Report Presentation	Chapter 3	Students will learn to analyze electricity bills, understand unit consumption, apply rate slabs, and accurately calculate total billing over three months CO3
4	Prepare a Model or Chart Presentation on: (Any One) a) Rainwater harvesting in hotel b) Recycling of water in hotel	Model/Chart preparation and presentation	Chapter 4	Students will understand, demonstrate, and creatively present sustainable water management practices in hotels through models or chart presentations CO4
5	Design a Sustainable Procurement Policy for a Hotel OR Report on Hospitality CSR Activities being conducted	Report Presentation	Chapter 5	Students will understand, analyze, and apply sustainable practices or CSR initiatives to enhance hotel operations and promote environmental and social responsibility CO5

References:

1. Hotel Facility Planning by Tarun Bansal
2. Hospitality Facilities Management and Design by David M. Stipanuk of American Hotel & Lodging Educational Institute
3. Scholarly Articles for Safety Management: A Guide for Facility Managers
4. Safety Management: A Guide for Facility Managers Book by Joseph F Gustin
5. The Facility Management Handbook by Kathy O. Roper, Richard Payant
6. Total Facility Management by Brian Atkin, Adrian Brooks
7. Facilities Management: Innovation and Performance by Keith Alexander, Brian Atkin, Jan Bröchner, Tore Haugen
8. Mechanical and Electrical Equipment for Buildings by Walter T. Grodzisk, Alison G. Kwok
9. Facilities Management: Managing Maintenance for Buildings and Facilities by Joel D. Levitt

10. Facility Management - A Professional Guide by Ramesh Upadhyay & Jitendra Narayan Kumar
 11. Facilities Planning by James A Tompkins, PH. D
 12. BIM Handbook: A Guide to Building Information Modeling for Owners, Managers, Designers, Engineers and Contractors by Chuck Eastman, Paul Teicholz, Rafael Sacks
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Subject:	Facility Management and Sustainability Practices (PRACTICAL)		
Subject Code:	HS 313 P	Vertical:	Major MJEP
Subject Credits:	02	Hours per week:	02
Semester:	IV		

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination	Total Marks
15	35	50

Course Outcomes:

- CO 1: Understand facility management duties in hospitality, including maintenance types, work orders, and SOPs.
- CO 2: Discuss HVAC systems and apply preventive maintenance for efficient and eco-friendly operations.
- CO 3: Outline sustainable practices like waste segregation, recycling, and energy audits in hotel management.
- CO 4: Demonstrate maintenance planning and safety compliance in various hotel departments

Practicals

Minimum **15 Individual Practicals** to be conducted during the semester.

1. Presentation on scope of Facility Management in hospitality industry
 2. Types of Maintenance: Routine Maintenance, Preventive Maintenance, Scheduled Maintenance
 3. Types of Maintenance: Emergency & Breakdown
 4. Guestroom Maintenance: Checklist for Preventive Maintenance
 5. Maintenance Work Order Process with flowchart and the format of Maintenance Work Order
 6. Designing a Standard Operating Procedure (SOP) for Hotel Maintenance
 7. Guestroom HVAC System Types: Centralized systems, Decentralized Systems, Hybrid
 8. Guestroom Maintenance: Checklist for Preventive Maintenance
 9. Waste Segregation and Audit Activity in Hotel Premises
 10. Calculation of Electricity Bill
 11. Presentation on Requirement of Green Audit for Hospitality Industry
 12. Case Study: Analyze Real-World Examples of Successful Energy Management Strategies in Hotels
 13. Case Study: Recycling of Hotel Waste
 14. Layout of any one Department (or sub-department) and Sample Maintenance Actions for Daily Maintenance, Monthly Maintenance and Annual Maintenance for the same.
 15. Design a Zero Waste Initiative Proposal
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