# **CURRICULLUM OF 6TH SEMESTER**

### For

# DIPLOMA IN HOTELMANAGAMENT & CATERING TECHNOLOGY

# (W.e.f 2020-21 Sessions)



# **STATE COUNCIL FOR TECHNICAL EDUCATION** & VOCATIONAL TRAINING, ODISHA, BHUBANESWAR

				Periods/week		Evaluation Scheme			
Subject Number	Subject Code	Subject	L	т	Р	Internal Assessment/ Sessional	End Sem Exams	Exams (Hours)	Total
		Theory							
Th.1		FOOD NUTRITION	4		-	20	80	3	100
Th.2		FOOD & BEVERAGE SERVICE-V	4		-	20	80	3	100
Th.3		FOOD & BEVERAGE MANAGEMENT	4		-	20	80	3	100
Th.4		HOTEL MAINTANANCE & MANAGEMENT	4		-	20	80	3	100
		Total	16			80	320	-	400
		Practical							
Pr.1		FOOD NUTRITION	-	-	6	50	100	3	150
Pr.2		FOOD & BEVERAGE SERVICE-V	-	-	6	50	50	3	100
Pr.3		HOTEL MAINTANANCE	-	-	6	25	50	3	75
Pr.4		LIFE SKILL	-	-	2	25	-	-	25
		STUDENT CENTERED ACTIVITIES (SCA)	-	-	3	-	-	-	-
		Total	-	-		150	200		350
		Grand Total	16	0	23	230 ass is of minimum 55	520	-	750

# Th.1 FOOD NUTRITION

Theory: 4 Periods per Week Total Periods: 60 Periods Examination: 3 Hours I.A: 20 Marks Term End Exam : 80 Marks TOTAL MARKS : 100 Marks

#### **Objective: After completion of this course**

The student must able to learn various types of Carbohydrates in Nutrition. The student must able to identify different kinds of Vitamins & Minerals. They must able to learn various kinds of Balanced Diet & Modified Diets.

#### Topic- wise distribution of periods with marks

S.L.	Topics	Periods	
No.			
I	Introduction to Nutrition	14	
II	Carbohydrates in Nutrition	05	
	Proteins in Nutrition	08	
IV	Water	05	
V	Vitamins	06	
VI	Minerals	05	
VII	Balanced Diet	05	
VIII	Modified Diets	12	
	Total	60	

#### **1. INTRODUCTION TO NUTRITION**

- a) Introduction
- b) Some Important Definitions
- c) Relation of Food and Health
- d) Food and its Functions
- e) Physiological Functions
- f) Psychological Function
- g) Social Function
- h) Factors Affecting Food Intake and Food
- i) Habits
- j) Geographic Reasons
- k) Economic Reasons
- I) Religious Reasons
- m) Social Reasons
- n) Health
- o) Classification of Nutrients
- p) Classification on the Basis of Amounts Required Everyday
- q) Classification on the Basis of Function
- r) Classification on the Basis of Chemical Properties
- s) Classification on the Basis of Essentiality
- t) Recommended Dietary Allowances

#### 2. CARBOHYDRATES IN NUTRITION

- a) Introduction
- b) Classification of Carbohydrates
- c) Sources
- d) Functions
- e) Deficiency
- f) Excess Carbohydrates

- g) Role of Dietary Fibre in Prevention and Treatment of Disease
- h) Recommended Dietary Intake for Adults
- i) Artificial Sweeteners

#### **3. PROTEINS IN NUTRITION**

- a) Introduction
- b) Essential Amino Acids
- c) Non-essential Amino Acids
- d) Protein Quality
- e) Limiting Amino Acid
- f) Biological Value
- g) Classification of Proteins
- h) Classification by Composition
- i) Classification by Quality
- j) Functions in the Human Body
- k) Methods of Improving Protein Quality
- I) Factors Influencing Protein
- m) Requirements
- n) Recommended Dietary Allowances
- o) Dietary Sources
- p) Animal Food Sources
- q) Plant Food Sources
- r) Special Protein Supplements
- s) Effect of Deficiency
- t) Effect of Excess

#### 4. WATER

- a) Introduction
- b) Functions
- c) Daily Intake of Water
- d) Daily Loss of Body Water
- e) Water Balance
- f) Deficiency of Water
- g) Retention of Water
- h) Daily Requirement
- i) Beverages
- j) Nutritive Value of Beverages

#### 5. VITAMINS

- a) Introduction
- b) Classification
- c) Fat-Soluble Vitamins
- d) Vitamin A
- e) Vitamin D
- f) Vitamin E
- g) Vitamin K
- h) Water-Soluble Vitamins
- i) B-Complex Vitamins
- j) Thiamine (vitamin B1)
- k) Riboflavin (vitamin B2)
- I) Niacin
- m) Anaemia-preventing Vitamins
- n) Folic Acid or Dietary
- o) Cyanocobalamin (Vitamin B12)
- p) Pyridoxine (Vitamin B6)
- q) Vitamin C
- r) Effect of Cooking on Vitamins

#### 6. MINERALS

- a) Introduction
- b) Classification
- c) General Functions of Minerals
- d) Bioavailability of Minerals
- e) Calcium
- f) Phosphorus
- g) Iron
- h) lodine
- i) Fluorine
- j) Sodium
- k) Potassium
- I) Magnesium

#### 7. BALANCED DIET

- a) Introduction
- b) Recommended Dietary Allowance
- c) RDAs for Specific Nutrients
- d) Definition
- e) Basic Food Groups
- f) Cereal and Millets Group
- g) Protein or Body-building Food Group
- h) Protective Food Group
- i) Secondary Protective Group or Other Fruits and Vegetables
- j) Fats and Oils, Sugar, and Jaggery
- k) Guidelines for using the Basic Food Group
- I) The Food Pyramid

#### 8. MODIFIED DIETS

- a) Introduction
- b) Purpose of Diet Therapy
- c) Classification of Modified Diets
- d) Modifications in Consistency
- e) Modifications in Nutrient Content
- f) Modifications in Fibre
- g) Modifications in Quantity
- h) Modifications in Method of Feeding
- i) Diets for Common Disorders
- j) Diabetes Mellitus
- k) Symptoms of Diabetes
- I) Treatment of Diabetes
- m) Fevers and Infection
- n) Cardiovascular Diseases
- o) Disorders of the Gastrointestinal Tract
- p) Liver Disorders
- q) Kidney Disorders
- r) Cancer

#### Syllabus coverage up to I.A

Units 1, 2, 3, 4, 5

#### **REFERENCE BOOKS**

- 1. FOOD SCIENCE NUTRITION Third Edition SUNETRA RODAY Oxford University Publication
- 2. Nutrition and Dietetics Shubhangini A Joshi Mc Graw hill Publication

# Th.2 FOOD & BEVERAGE SERVICE-V

Theory: 4 Periods per Week Total Periods: 60 Periods Examination: 3 Hours I.A: 20 Marks Term End Exam : 80 Marks TOTAL MARKS : 100 Marks

#### Objective: After completion of this course

The student must able to learn various types of Food & beverage staff organization. The student must able to identify different kinds of Bar operations. They must able to learn Use of Cocktails & mixed drinks.

#### Topic- wise distribution of periods with marks

S.L. No.	Topics	Periods
	Food & beverage staff organization	15
	Managing food & beverage outlet	05
	Bar operations	15
IV	Cocktails & mixed drinks	25
	Total	60

#### 1. FOOD & BEVERAGE STAFF ORGANISATION

- a) Category of Staff
- b) Hierarchy
- c) Job Description and Specification
- d) Duty Roaster

#### 2. MANAGING FOOD & BEVERAGE OUTLET

- a) Supervisory Skills
- b) Developing Efficiency
- c) Standard Operating Procedure

#### 3. BAR OPERATIONS

- a) Types of Bar
  - Cocktail
  - Dispense
- b) Area Of Bar
- c) Front Bar
- d) Back Bar
- e) Under Bar (Speed Rack, Garnish Container, Ice Well Etc.)
- f) Bar Stock
- g) Bar Control
- h) Bar Staffing
- i) Opening And Closing Duties

#### 4. COCKTAILS & MIXED DRINKS

- a) Definition and History
- b) Classification
- c) Recipe, Preparation and Service of Popular Cocktails
  - Martini- Dry & Sweet
  - Manhattan- Dry & Sweet
  - Dubonnet
  - Roy-Roy
  - Bronx
  - White Lady
  - Pink Lady
  - Side Car

- Bacardi
- Alexandra
- John Collins
- Tom Collins
- Gin FIZZ
- 0Pimm's Cup- No. 1,2,3,4,5
- Flips
- Noggs
- Champagne Cocktail
- Between The Sheets
- Daiquiri
- Bloody Mary
- Screw Driver
- Tequila Sunrise
- Gin-Sling
- Planters Punch
- Singapore Sling
- Pinacolada
- Rusty Nail
- B&B
- Black Russian
- Margarita
- Gimlet-Dry & SWEET
- Cuba Libre
- Whiskey Sour
- Blue Lagoon
- Harvey Wall Banger
- Bombay Cocktail

#### Syllabus coverage up to I.A

Units 1, 2

### **BOOKS RECOMMENDED**

- 3. Food & Beverage service Denis Lillicrap
- 4. Food & Beverage Service Vijay Dhawan
- 5. Food & beverage Service- Rao J Suhas

### Th.3 FOOD & BEVERAGE MANAGEMENT

Theory: 4 Periods per Week Total Periods: 60 Periods Examination: 3 Hours I.A: 20 Marks Term End Exam : 80 Marks TOTAL MARKS : 100 Marks

#### **Objective: After completion of this course**

The student must able to learn various types of Food cost control. The student must able to identify different kinds of Budgetary Control. They must able to learn Menu Merchandising.

#### Topic- wise distribution of periods with marks

S.L.	Topics	Periods
No.		
I	Food cost control	02
II	Food control cycle (Purchasing control)	05
	Receiving control	03
IV	Storing and Issuing Control	05
V	Production Control	05
VI	Sales Control	03
VII	Cost Dynamics	02
VIII	Sales Concept	05
IX	Inventory Control	05
Х	Beverage Control	05
XI	Sales Control	05
XII	Budgetary Control	05
XIII	Variance Analysis	02
XIV	Labour Cost Control	02
XV	Breakeven Analysis	02
XVI	Menu Merchandising	02
XVII	MIS	02
	Total	60

#### 1. Food cost control

- a) Introduction to cost control
- b) Define cost control
- c) Objectives and advantages of cost control

#### 2. Food control cycle (Purchasing control)

- a) Aims of purchasing
- b) Job description of purchase manager
- c) Types of food purchase
- d) Quality purchasing
- e) Purchasing procedure
- f) Methods of purchasing
- g) Source of supply
- h) Standard purchase Specification
- i) Purchase order form
- j) Ordering cost
- k) Carrying cost
- I) EOQ

#### 3. Receiving control

- a) Aims of receiving
- b) Receiving staff
- c) Equipments for receiving
- d) Document given by supplier
- e) Delivery notes
- f) Bills/Invoice
- g) Credit notes
- h) Records Maintained in the receiving department
- i) Goods received book
- j) Meat tags
- k) Receiving procedure
- I) Bound receiving
- m) Frauds in receiving department

#### 4. Storing and Issuing Control

- a) Aims of store control
- b) Food store room personnel
- c) Arrangement of food
- d) Location of storage facilities
- e) Security
- f) Stock control
- g) Types of foods received
- h) Record Maintained
- i) Issuing Control
- j) Requisitions
- k) Transfer notes
- I) Stock Taking

#### 5. Production Control

- a) Aim and objective
- b) Forecasting
- c) Fixing of standard
- d) Definition of standard (Quality & Quantity)
  - Standard Recipe (Definition, Objective and tests)
  - Standard Portion Size (Definition, Objective and Equipments Used)
  - Standard Portion Cost

#### 6. Sales Control

- a) KOT
- b) Bills
- c) Billing Procedure- Cash & Credit Sale
- d) Casher summery Sheet

#### 7. Cost Dynamics

- a) Element of Cost
- b) Classification of Cost
- c)
- 8. Sales Concept
  - a) Various Sales Concept
  - b) Use of Sales Concept
  - c)

#### 9. Inventory Control

- a) Importance
- b) Objective
- c) Method
- d) Level and Technique
- e) Perpetual Inventory
- f) Monthly Inventory
- g) Pricing Of commodities
- h) Comparison of Physical And Perpetual Inventory

#### 10. Beverage Control

- a) Purchasing
- b) Receiving
- c) Storing
- d) Issuing
- e) Producing Control
- f) Standard Recipe
- g) Standard portion Size
- h) Bar frauds
- i) Books Maintained

#### 11. Sales Control

- a) Procedure of Cash Control
- b) Machine System
- c) ECR
- d) NCR
- e) Preset Machines
- f) POS
- g) Reports
- h) Theft
- i) Cash Handling

#### 12. Budgetary Control

- a) Define Budget
- b) Define Budgetary Control
- c) Objective
- d) Types of Budget

#### 13. Variance Analysis

- a) Standard Cost
- b) Standard Costing
- c) Cost Variances
- d) Material Variances
- e) Labour Variances
- f) Overhead Variances
- g) Fixed Overhead Variances
- h) Sales Variances
- i) Profit Variances

#### 14. Labour Cost Control

- a) Staffing
- b) Payroll
- c) Over Time

#### 15. Breakeven Analysis

- a) Breakeven Chart
- b) PV Ratio
- c) Contribution
- d) Marginal Cost
- e) Graphs

#### 16. Menu Merchandising

- a) Menu Control
- b) Menu Structure
- c) Planning
- d) Pricing of Menu
- e) Types of Menu
- f) Menu as Marketing tool
- g) Layout
- h) Constraints of Menu Planning

### 17. MIS

- a) Reports
- b) Calculation of Actual Cost
- c) Daily Food Cost
- d) Monthly Food Cost
- e) Statistical Revenue Reports

### Syllabus coverage upto I.A

Units 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

### **BOOKS RECOMMENDED**

- 1. Food and Beverage Management by Sudhir Andrews
- 2. Food and Beverage Management by John Cousine, David Foskett
- 3. Food and Beverage Management by Partho Pratim Seal

# Th.4 HOTEL MAINTANANCE & MANAGEMENT

Theory: 4 Periods per Week Total Periods: 60 Periods Examination: 3 Hours I.A: 20 Marks Term End Exam : 80 Marks TOTAL MARKS : 100 Marks

#### **Objective: After completion of this course**

The student must able to learn about Engineering Department of a Hotel. The student must able to identify different Fire Prevention & its Protection. They must able to learn Sanitary Systems.

Topic- wise distribution of periods with marks
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S.L.	Topics	Periods
No.		
I	Hotel Maintenance Management	05
II	Engineering Department	05
	Fuels	06
IV	Electricity	10
V	Water Management System	05
VI	Sanitary Systems	07
VII	Refrigeration	06
VIII	Air-conditioning	06
IX	Fire Prevention & Protection	10
	Total	60

#### 1. Hotel Maintenance Management

- a) Introduction & Scope in Hotels
- b) Classification and Types
- c) Maintenance Programmes.

#### 2. Engineering Department

- a) Organization & Setup of the Department
- b) The Staff Duties and Responsibilities
- c) Requirement of Engineering Workshops.

#### 3. Fuels

- a) Types of Fuels available
- b) Gases
- c) Precautions while using them Heat Parts, BTU, Thermal & Calorific values
- d) Calculation of heat requirements, Fuel Requirement
- e) Principle of Bunsen burner
- f) Construction of an Industrial Gas Range: Parts & Functions, striking back, causes and remedies of problems.

#### 4. Electricity

- a) Meaning and use,
- b) Advantage as a type of energy, conductors and non conductors,
- c) Meaning of ampere, volt, ohm and their relationship, ohm's law,
- d) AC & DC- their differences, advantages and disadvantages, signs and signals, closed and open circuits, causes and dangers, importance of earthing.
- e) General layout of circuits including service entrance, distribution panel boards, calculation of power requirements, meter reading and bin calculations.

#### 5. Water Management System

- a) Sources of water and its quality
- b) Methods of removal of hardness, description of cold water
- c) Supply from mains and wells, calculations of water requirements and capacity of storage, systems.

#### 6. Sanitary Systems

- a) Sinks, basins
- b) Water closet, bidets and their fittings
- c) Use of water traps and water seals, water pipes and soil pipes
- d) Inspection chambers- blockages and leakages and their remedies.

#### 7. Refrigeration

- a) Principle uses of refrigeration in hotel and catering industries
- b) Basic scientific principles
- c) Different types of refrigeration systems and refrigerants
- d) Walk in coolers and freezers, care and maintenance of these systems.

#### 8. Air-conditioning

- a) Classification, Types of systems, Layout of AC Plant.
- b) Condition for comfort Air movement, humidity control, ventilation.
- c) How to select a suitable air-conditioning system.

#### 9. Fire Prevention & Protection

- a) Different types of fires
- b) Fire alarms
- c) Different types of extinguishers.
- d) Fire hazards.

#### Syllabus coverage up to I.A

Units 1, 2, 3, 4, 5

#### **BOOKS RECOMMENDED**

- 1. Textbook of Hotel Maintenance N.C.Goyal & K.C.Goyal
- 2. Hotel Engineering (Oxford Higher Education) By Sujit Ghosal (Author)

# Pr.1 FOOD NUTRITION Lab

Theory: 6 Periods per Week Total Periods: 90 Periods Examination: 3 Hours

#### <u>MENU-01</u>

• Preparation of Dietic menu

#### **MENU-02**

• Preparation of Dietic menu

#### **MENU-03**

• Preparation of Dietic menu

#### <u>MENU-04</u>

• Preparation of Dietic menu

#### MENU-05

Preparation of Dietic menu

#### <u>MENU-06</u>

• Preparation of Dietic menu

#### <u>MENU-07</u>

• Preparation of Dietic menu

#### <u>MENU-08</u>

• Preparation of Dietic menu

#### <u>MENU-09</u>

• Preparation of Dietic menu

#### <u>MENU-10</u>

• Preparation of Dietic menu

#### <u>MENU-11</u>

• Preparation of Dietic menu

#### <u>MENU-12</u>

• Preparation of Dietic menu

Sessional 50 End Sem Exams :100 TOTAL MARKS :150

# Pr.2 FOOD & BEVERAGE SERVICE-V Lab

Theory: 6 Periods per Week Total Periods: 90 Periods Examination: 3 Hours Sessional 50 End Sem Exams :50 TOTAL MARKS :100

#### 1. F & B Staff Organization

Class room Exercise (Case Study method)

- Developing Organization Structure of various food & Beverage Outlet
- Determination of Staff Requirements in all categories
- Making Duty Roster
- Preparing Job Description & Specification

#### 2. Supervisory Skills

• Conducting Briefing & Debriefing

#### - Restaurant, Bar, Banquets & Special events

- Drafting Standard Operating Systems (SOPs) for various F & B Outlets
- Supervising Food & Beverage operations
- Preparing Restaurant Log

#### 3. Bar Operations

- Designing & Setting The Bar
- Preparation & Service Of Cocktail & Mixed Drinks

### Pr.3 HOTEL MAINTANANCE LAB

Theory: 6 Periods per Week Total Periods: 90 Periods Examination: 3 Hours Sessional 25 End Sem Exams : 50 TOTAL MARKS :75

- 1. Study of Different Electric Components
- 2. Study of Fuel and switches
- 3. Study of Different types of wiring systems
- 4. Replacement and measurement (AC & DC) use of multimeter for voltage and current.
- 5. Study of different types of taps.
- 6. Study of Hot and cold water supply.
- 7. Study of Oven and its maintenance.
- 8. Study of Toaster
- 9. Study of various parts of refrigerator and its maintenance.
- 10. Study of various parts of Air Conditioner and its maintenance..

# Pr-4 LIFE SKILL

#### (Common to All Branches)

Practical	2 Periods per week	Sessional	25 Marks
Total Periods	30 Periods	Total Marks	25 Marks

**Objective:** After completion of this course the student will be able to:

- Develop team spirit i.e. concept of working in team
- Apply problem solving skills for a given situation
- Use effective presentation techniques
- Apply task management techniques for given projects
- Enhance leadership traits
- Resolve conflict by appropriate method
- Survive self in today's competitive world
- Face interview without fear

#### **DETAIL CONTENTS:**

#### 1. SOCIAL SKILL

Society, Social Structure, Develop Sympathy and Empathy Swot Analysis – Concept, How to make use of SWOT Inter personal Relation: Sources of conflict, Resolution of conflict, Ways to enhance interpersonal relation

#### 2. PROBLEM SOLVING

Steps of Problem solving:

- Identify and clarify the problem,
- Information gathering related to problem,
- Evaluate the evidence,
- Consider alternative solutions and their implications,
- Choose and implement the best alternative,
- Review
- Problem solving techniques:
- 1) Trial and error, 2) Brain storming, 3) Lateral (Out of Box) thinking

#### **3. PRESENTATION SKILL**

Body language , Dress like the audience

Posture, Gestures, Eye contact and facial expression. STAGE FRIGHT, Voice and language – Volume, Pitch, Inflection, Speed, Pause Pronunciation, Articulation, Language, Practice of speech. Use of AV aids such as Laptop with LCD projector, white board etc.

#### 4. GROUP DISCUSSION AND INTERVIEW TECHNIQUES

Group Discussion:

Introduction to group discussion, Ways to carry out group discussion, Parameters— Contact, body language, analytical and logical thinking, decision making

Interview Technique :

Dress, Posture, Gestures, facial expression, Approach Tips for handling common questions.

#### 5. WORKING IN TEAM

Understand and work within the dynamics of a groups.

Tips to work effectively in teams,

Establish good rapport, interest with others and work effectively with them to meet common objectives,

Tips to provide and accept feedback in a constructive and considerate way ,

Leadership in teams, Handling frustrations in group.

#### 6. TASK MANAGEMENT

Introduction, Task identification, Task planning , organizing and execution, Closing the task

#### PRACTICAL

List of Assignment: (Any Five to be performed including Mock Interview)

#### a. SWOT analysis:-

Analyse yourself with respect to your strength and weaknesses, opportunities and threats. Following points will be useful for doing SWOT.

- a) Your past experiences,
- b) Achievements,
- c) Failures,
- d) Feedback from others etc.

#### b. Solve the True life problem assigned by the Teacher.

#### 3. Working in a Team

Form a group of 5-10 students and do a work for social cause e.g. tree plantation, blood donation, environment protection, camps on awareness like importance of cleanliness in slum area, social activities like giving cloths to poor etc.( One activity per group where Team work shall be exhibited)

#### 4. Mock Interview

5. Discuss a topic in a group and prepare minutes of discussion.

#### 6. Deliver a seminar for 5 minutes using presentation aids on the topic given by your teacher.

#### 7. Task Management

Decide any task to be completed in a stipulated time with the help of teacher. Write a report considering various steps in task management (with Break up into sub tasks and their interdependencies and Time)

**Note**: -1. Please note that these are the suggested assignments on given contents/topic. These assignments are the guide lines to the subject teachers. However the subject teachers are free to design any assignment relevant to the topic.

**Note**: -2. The following Topics may be considered for Seminar/GD in addition to other Topics at the discretion of the Teacher.

(Comparison with developed countries, Occupational Safety, Health Hazard, Accident & Safety, First-Aid, Traffic Rules, Global Warming, Pollution, Environment, Labour Welfare Legislation, Labour Welfare Acts, Child Labour Issues, Gender Sensitisation ,Harassment of Women at Workplace)

#### **METHODOLOGY:**

The Teacher is to explain the concepts prescribed in the contents of the syllabus and then assign different Exercises under Practical to the students to perform.

SI.No	Name of Authors	Title of the Book	Name of the Publisher
01	E.H. Mc Grath , S.J	Basic Managerial Skills for All	PHI
02	Lowe and Phil	Creativity and problem solving	Kogan Page (I) P Ltd
03	Adair, J	Decision making & Problem Solving	Orient Longman
04	Bishop , Sue	Develop Your Assertiveness	Kogan Page India
05	Allen Pease	Body Language	Sudha Publications Pvt. Ltd.

#### **Books Recommended:-**

Food Production LAB List of Equipments installed/required for Hotel Management Food Production LAB

SI. No.	Name of items	Quantity
1.	4 Burner Continental Range with Griddle Plate with one Under Shelf & One Over Head Shelve	04 Nos.
2.	Chinese Cooking Range	01 No.
3.	Working/Miscen-Place Table	04 Nos.
4.	Sink Unit with Table	04 Nos.
5.	Salamander	01 No.
6.	Deep Fat Freezer with stand	04 Nos.
7.	Oven (Electrical) with stand single deck	01 No.
8.	Pasta Boiler	01 No.
9.	Pick up Table with OHS Warmer	01 No.
10.	Food Warmer	01 No.
11.	Baine Marie ( 5 Counter)	01 No.
12.	Hood & Duckting System	01 No
13.	Fresh Air Exhaust System	01 No.
14.	Pantry Table with Cupboard	01 No.
15.	Dustbin Moving	01 No.
16.	Dirty Dish Landing Table	01 No.
17.	Three Sink Unit with Wall Mounted Taps	01 No.
18.	Clean Dish Rack(aluminium)	01 No.
19.	Pipe Rack	01 No.
20.	Gas Bank Installation (for all Kitchens)	01 No.
21.	Food Processor (6 Attachment)	01 No.
22.	Weighing Machine (50 Kg.capacity)	01 No.
23.	Pizza Oven	01 No.
24.	Hand Blender	01 No.
25.	Microwave Oven	01 No.
26.	Inframetic Griller	01 NO.
27.	Juice Machine	01 No.
28.	Plumbing/Electrical Drainage Fitting & Fixture according to lab design.	
29.	All utensils (Small/Big Cuttering, Knifes & other small equipments)	
30	Insect Killer	01 No.
31.	Chooping/Cutting Board Rack	16 Nos.
32.	First Aid Box	01 No.
33.	Tandoor Chulla	01 No.
34.	Tandoor Working Table	01 No.
35.	Lock & Key Almirah	01 No.
36.	stbin on wheel	04 Nos.
37.	Hand mixture machine	01 No.
38.	Wet Maasala Grinder(10kg.capacity)	01 No.
	With coconut scrapper	
39.	Pulvercizere Machine	01 No.
40.	Greedile plate with chapatti puffere	01 No.
41.	Refrigerator	01 No.
42.	Deep Freezer	01 No.
43.	Dough Kneader	01 No.
44. 45	Bakery Marble Table	01 No.
45.	Small cream mixture	01 No.

#### TRAINING BAR & RESTAURANT LAB

SI. No.	Name of items	Quantity
1.	Full Wooden Table	04 Nos.
2.	Placement On Top of Table	
3.	Chair (Dining) Cushion and Upholstered	
4.	Bar Counter	01 No.
5.	Bar Blender	01 No.
6.	Ice Trolley	01 No.
7.	Juicer Mixer	01 No.
8.	Cutlery (EPNS)	
9.	Crockery (Fine Bone China)	
10.	Holloware & Flatware (design as per décor)	
11.	Glassware (Authentic)	
12.	Flambé Trolley	01 No.
13.	Side Station/Demi-Waiter	01 No.
14.	Wine Stand	01 No.
15.	Fresh Linen Rack	01 No.
16.	Soiled Linen Rack	01 No.
17.	Soiled Linen Rack	01 No.
18.	Fire Aids	01 No.
19.	Hand Wash Basin with (Chlorin Solution) Germicidal Liquid Soap ( as per HACCP)	01 No.
20.	Baine Marie	01 No.
21.	Dinning S.S. Table with Connected Chairs	04 sets
22.	Water Cooler (20 Ltrs)	01 No.
23.	Fresh Glass Rack(35 No.capacity)	02 Nos.
24.	Used Glass Rack(-do-)	02 Noa.
25.	Exhaust Fan's	02 Nos.

**FRONT OFFICE LAB** List of Equipments installed/required for Hotel Management Front Office Department

SI. No.	Name of Items Quantity	Quantity
1.	Software (Fidelio) or (Opera)	
2.	Computer setup (at back of Front Office Reception)	
3.	Reception Counter (Wooden/Metal as per Lobby of a Hotel).	
4.	Exchange Rate Board	01 No.
5.	Bell hop Trolley	01 No.
6.	Sofa Set with centre Table	01 No.
7.	Telephone with EPABX	01 No.
8.	Guest Electronic Locker facility (one cupboard)	10 Nos.
9.	UV Ray Box to check the duplicacy the currency	01 No.
10.	Wall Painting / Wall Hanging	04 Nos.
11	Bell Desk	01 No.
12.	Flower Vase	02 Nos.

### **HOUSE KEEPING LAB**

List of Equipments installed/required for Hotel Management for House Keeping Department

SI. No.	Name of Items	Quantity
1.	Vacuum Cleaner (Dry)	01 No.
2.	Vacuum Cleaner (Wet)	01 No.
3.	Scrubbing-cum Polishing Machine	01 No.
4.	Working Table	01 No.
5.	Instruction Table	01 No.
6.	Sink with Table	01 NO.
7.	Linen Basket Trolley	01 No.
8.	Shelves for storing Linen Uniform	01 No.
9.	Iron heavy weight	01 no.
10.	Waste extractor(5kg.capacity to front loading, full automatic	01 no.
11.	Ironing Board	01 No.
12.	Steam Press	01 no.
13.	Shelve	01 No.

### LIST OF EQUIPMENT FOR HOUSE KEEPING MOCK ROOM OF A FIVE \* DELUX HOTEL

SI. No.	Name of Items	Quantity
1	Bed with side tables	01 No.
2	Single sofa chair with upholstery or small size two seater sofa	01 No.
3	Glass top tea table/coffee table	01 No.
4	Study table	01 no.
5	Study chairs	01 no.
6	Mirror with dressing table & drawers	01 No.
7	Luggage rack	01 no.
8	Wardrobe	01 no.
9	Shelf over fridge for glasses & thermos	01 no.
10	Geyser (20 ltrs.)	01 no.
11	Table Lamp	01 No.
12	Pedestal Lamp	01 no.
13	Color TV with remote	01 no.
14	Music system	01 no.
15	Mini Fridge	01 No.
16	2' x 21/2' painting/wall hanging	
17	Shear curtain	
18	Heavy curtain	
19	Cushions for sofa chairs	04 Nos.
20	Double bed sheet	01 No.
21	Pillow covers	04 Nos.
22	Bed Cover	01 No.
23	Bath towel	02 Nos.
24	Hand towel	02 Nos.
25	Bath mat	01 no
26	Shower curtain	01 No.
27	Towel rack with pull up type cloth lining	01 No.
28	Energy saving device system	01 No.
29	Electronic locking device on main door	01 No.
30	Telephone (electronic & light weight)	01 No.
31	Door Bell & Indicator for DND	01 No.