# **SCHEME & SYLLABUS**

# FOR

# BACHELOR DEGREE (6 Semester Course)

# IN

# HOTEL MANAGEMENT & CATERING SCIENCE (BSc. HM & CS)

# UNIVERSITY OF KERALA THIRUVANANTHAPURAM

### UNIVERSITY OF KERALA BSc. HM &CS PROGRAMME

(Bachelor Degree in Hotel Management and Catering Science)

## **Regulation, Scheme & Syllabus**

#### I. Introduction

The hospitality industry is one of the fast growing industries globally today. The industry needs highly trained professional staff. The 3-year degree programme in Hotel Management and Catering Science is designed to meet the varied manpower needs of the different segments of the Hotel and Catering Industry. The programme will provide an all round training in Hotel Management and Catering Science, coming practical learning with class room lectures, so as to prepare the students to face the challenges of the Hospitality industry. The objective of the 3 years degree programme is to provide theoretical knowledge along with practical skill and proper motivation to build a career in the Hospitality industry.

#### II. Course Duration

The degree programme shall be completed in 3 years consisting of six semesters. Each semester shall consist of 18 instructional weeks of 5 days each of 6 hours per day. Each semester shall have 90 instructional days or 450 instructional hours.

#### Ill. Eligibility for Admission

The eligibility for admission to the BSc. HM&CS (Bachelor degree in Hotel Management and Catering Science) programme under the University of Kerala is a pass in the Higher Secondary Technical Higher Secondary/Vocational Higher Secondary examination of the Kerala State Government with any subject combination or any other examination declared by the University of Kerala as equivalent thereto with a minimum of 45 percent marks in the aggregate.

#### **IV. Selection Process**

50% of the candidates for admission will be selected on the basis of the Rank List published by the University of Kerala based on the Single window admission system conducted by the University and the remaining 50% will be selected on the basis of the Rank List published by the College Management based on the Entrance Examination conducted by them. For preparing the final Rank List for admission, 80% weightage will be given to the marks scored bv the candidates in the respective Entrance Examinations, 10% weightage for group discussion and 10% weightage for interview.

#### V. Reservation of Seats to SC/ST and other reservation categories

The rules for reservation of seats for SC/ST candidates and other reservation categories are as laid down by the Government from time to time These rules will be observed in the admission to BSc. HM & CS (Bachelor degree in Hotel Management and Catering science) programme also.

#### VI. Requirement of Attendance and Progress

Students who secure a minimum of 75% attendance in the aggregate for all the Courses of a semester taken together alone will be allowed to register for End Semester Evaluation. Others have to repeat the semester along with the next batch, unless they could make up the shortage of attendance through condonation. However the award of Grade for attendance in CE shall be made course-wise. Condonation of shortage of attendance to a maximum of 10 days in a semester subject to a maximum of two times during the whole period of a Degree Programme shall be granted by the University on valid grounds. This condonation shall not be considered for awarding marks for CE. Benefits of attendance for a maximum of 10 days in a semester shall be granted to students who participate/attend University Union activities, meetings of the University Bodies and Extra Curricular Activities, on production of participation/attendance certificate by the University Authorities/Principals as the case may be. But in such cases, condonation will be considered for award of marks for CE.

#### VII. Examination and Results

1. Regular Semester Examinations will be conducted at the end of each semester. The duration of Examinations will be three (3) hours for those subjects having 100 Marks (80 + 20). Semester examinations shall be conducted and results will be announced by the University The examination for the practical courses will be held at the end of each semester The University will issue the semester mark list after each semester examination and the final consolidated mark list showing the marks scored in all the six semesters after the successful completion of the BSc. HM & CS Degree programme.

2. All of the subjects, the end semester examination will have individually 100 marks (total 6 subjects) and no internal assessment in sixth semester. Making the total marks for the IET subjects 500 & hospitality project having 100 marks.

3. The Internal Assessment shall be done on the basis of (i) Periodical tests, subject to minimum of two tests for each subject.(ii)Assignments and (iii) class Participation and attendance. The distribution of marks for the internal assessment will be as follows:

### 4. VI<sup>TH</sup> SEMESTER - INDUSTRIAL EXPOSURE TRAINING SCHEME

Industrial Training is an in integral part of the curriculum. Student has to undergo industrial training minimum 22 weeks at a single stretch. They will be awarded altogether 500 marks for the industrial training which includes 100 marks for each training report and each conduct of viva voce.

#### 5. Evaluation and Grading

The Evaluation of each Course shall consists of two parts

1) Continuous Evaluation (CE)

2) End Semester Evaluation (ESE)

The CE and ESE ratio shall be 1:4 for both Courses with or without practical. There shall be a maximum of 80 marks for ESE and maximum of 20 marks for CE. For all Courses (Theory and Practical), Grades are given on a 7-point scale based on the total percentage of mark (CE+ESE) as given below.

#### **Criteria for Grading**

Percentage of marks	ССРА	Letter Grade	
90 and above	9 and above	A+ Outstanding	
80 to < 90	8to<9	A Excellent	
70 to <80	7to<8	B Very Good	
60 to < 70	6to<7	C Good	
50 to < 60	5to<6	D Satisfactory	
40 to < 50	4to<5	E Adequate	
Below 40	<4	F Failure	

#### **Continuous Evaluation (CE)**

All records of Continuous Evaluation shall be kept in the Department and shall be made available for verification by the University, if and when necessary

#### Attendance (Max.marks 5):

The allotment of marks for attendance shall be as follows:

Attendance less than 75 %	1 Marks
75 % & less than 80%	2 Marks
80% & less than 85%	3 Marks
85% & less than 90%	4 Marks
90% & above	5 Marks

#### Assignments or Seminars: (Max. marks 5)

Each student shall be required to do one assignment or one seminar for each Course. Valued assignments shall be returned to the students. The seminars shall be organized by the teacher/teachers in charge of CE and the same shall be assessed by a group of teachers including the teacher/ teachers in charge of that Course. Assignments/Seminars shall be evaluated on the basis of their quality. The teacher shall define the expected quality of an assignment in terms of structure, content, presentation etc. and inform the same to the students. Due weight shall be given for punctuality in submission. Seminar shall be similarly evaluated in terms of structure, content, presentation, interaction etc.

#### Tests: (Max. marks 10)

For each Course there shall be one class test during a semester. Valued answer scripts shall be made available to the students for perusal within 10 working days from the date of the test.

#### Announcement of results of CE.

The results of the CE shall be displayed within 5 working days from the last day of a semester. Complaints regarding the award of marks for CE if any have to be submitted to the Head of the Department within 3 working days from the display of results of CE. These complaints shall be examined by the Department Committee and shall arrive at a decision, which shall be communicated to the student.

The Statement of marks of the CE of all the students shall be approved by the Department Committee, countersigned by the Principal and forwarded to the Controller of Examinations within 15 working days from the last day of the semester. The University has the right to normalize the CE, if required, for which separate rules shall be framed

Total	20 marks
(c) Class Participation and attendance for each course	5 marks
(b) Assignments	5 marks
(a) Periodical tests (Subject to minimum one tests for each subject)	10 marks

7. A systematic record for the award of Internal Assessment marks shall be maintained in the Department signed by the Faculty member concerned and counter signed by the Head of the Department/Institution.

8. Semester examinations for the BSc.HM & CS (Bachelor Degree in Hotel Management and Catering Science) programme for each subject shall be conducted at the end of each semester. There will be supplementary semester examinations for failed candidates

9. Candidates for the BSc. HM & CS Programme shall be eligible to undergo the course of study in the next semester and take the examinations of that semester, irrespective of the results of the examination of the previous semester provided they have completed all the formalities of attendance, payment of all fees due to the University and registration for the examination in the earlier semester. However, a candidate who has failed to secure the required minimum marks in any subject shall be given a maximum of three additional chances for securing a pass in such subject.

10. In case, a candidate fails to pass in 50% of the total papers in consecutive semesters in a particular year, he shall have to repeat the whole year.

#### VIII Hospitality Research Project

The student will have to undertake a research project on any topics from Hotel Management & Catering Science and related branches in the curriculum. The research project is intended to serve the student develop ability to apply multidisciplinary concepts, tools and techniques to deal with any subject related to hospitality industry.

The Project/Dissertation work can be done either individually or by a group not exceeding five students under the supervision and guidance of the teachers of the Department. The topics shall either be allotted by the supervising teacher or be selected by the students in consultation with the supervising teacher.

The project work shall have the following stages:

a. Project proposal presentation and literature review	- 5 <sup>th</sup> semester
b. Field work and data analysis	- 6 <sup>th</sup> Semester
c. Report writing and draft report presentation	- 6 <sup>th</sup> Semester
d. Final report submission	- 6 <sup>th</sup> Semester

The report shall be printed and spiral bound with around 50 A4 size pages. The layout is:

Font	: Times New Roman		
Size	:12		
Line Spacing	: 1.5		
Margin	: Left - 1.25; Right-1; Top-1; Bottom-1		

The project report should be submitted to the Department at least 15 days before the last working day of the sixth semester. The candidate shall prepare three copies of the report: two copies for submission to the Department and one copy for the student to bring at the time of viva-voce

#### **Structure of the Report:**

- 1. Title Pages
- 2. Certificate of the supervising Teacher with signature
- 3. Contents
- 4. List of Tables, Figures, Charts etc
- 5. Chapter 1- Introduction, Review of literature, Statement of the problem, Need and Significance of the study Objectives of the study, Research Methodology, Chapterisation scheme etc
- 6. Chapter II Theoretical Back ground
- 7. Chapter III Data Analysis and Interpretation
- 8. Chapter) IV Summary, Findings and Recommendations
- 9. Appendix Questionnaire, Specimen copies of forms, other exhibits
- 10. Bibliography (Books, journal articles, website etc. used for the project work)

#### **EVALUATION.**

- \* A Board of two examiners appointed by the University shall evaluate the report.
- \* There shall be no Continuous Evaluation for the Project work.
- \* Evaluation of project should involve submission of report with a and project based viva-voce.
- \* A Viva voce based on the project report shall be conducted Individually by the Board of Examiners.

The total credits for Project work is 4.

\* The Maximum Marks for evaluation of the report shall be

100 distributed among the following components,

i) Statement of the problem -	- 10
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ii) Objectives of the study	- 5
iii) Review of literature	- 5
iv) Methodology	- 15
v) Analysis and Interpretation	- 15
vi) Presentation of the report	-10
vii) Findings and suggestions	-10
viii) Bibliography	- 5
ix) Viva-Voce	- <u>25</u>
Total	- 100

An examiner shall evaluate 10 project reports per day.

#### End Semester Evaluation (ESE):

End Semester Evaluation of all the Courses in all the semesters shall be conducted by the University. The results of the ESE shall be arranged to be published according to the Examination Calendar prescribed by the University Level Monitoring Committee (ULMC), which shall not exceed 45 days from the last day of the examination

#### IX. Time Limit for the Completion of Programme

A candidate shall be required to complete the programme within a period of six years after joining the programme

#### X. Classification of Successful Candidates

- (A) A candidate who secures not less than 40% in the written examination separately and subject to a minimum of 50% of the aggregate of internal assessment and written examination together will be declared to have passed the examination
- (B) A candidate who secures not less than 40% mark in the industrial exposure training report and subject to 50% of the aggregate of training report and viva voce put together will be declared to have passed the examination of sixth semester.
- (C) A candidate who secures not less than 40% mark in research project and subject to 50% of the aggregate of project report and viva voce put together will be declared to have passed the examination of course code Hospitality Research project.
- (D) CLASSIFICATION OF RESULT will be based on the aggregate marks of all the Sessional and end semester examinations in all the six semesters put together.
  - 1. Candidates who have secured 50% marks and above but below 60% of total marks for all subjects in six semester examinations shall be declared to have passed in second class
  - 2. Candidates who obtain 60% marks and above but less than 80% of the total marks shall be declared to have passed in First Class and
  - 3. Candidates who obtain 80% and above of the total marks shall be declared to have passed in first class with distinction.
  - 4. Successful candidates who completed the examination in four academic years (six consecutive semesters) after the commencement of the course of study alone shall be considered for ranking purpose. Students who pass the examination in supplementary examinations are also covered under this clause.

#### XI Social service/extension activities

Students are to participate in Extension/NSS/NCC or other specified social service, sports, literary and cultural activities. These activities are to be carried out outside the instructional hours and will fetch the required one credit extra over and above the minimum prescribed 120 credits. It is mandatory for a student to participate in

the Social Service/Extension Activities for not less than forty hours, during the 3rd and 4th semesters, for successful completion of the Programme.

There shall be a General Co-ordinator be nominated by the College Council, for the conduct of all these activities. A statement testifying the participation of the students shall be forwarded to the Controller of Examinations along with the statement of CE results of the 4th semester. Those who have not secured the minimum number of hours of Social Service/Extension Activity during the 3rd and 4th semester shall secure the minimum required attendance by attending such Programmes during the 5th semester. In such cases, the details about participation shall be forwarded to the Controller of Examinations, by the College authorities along with the Continuous Evaluation (CE) results of the 5th semester.

#### XII Grading System

Both CE and ESE will be carried out using Indirect Grading system on a 7-point scale.

#### **XIII Question Paper**

#### **Pattern of Questions**

Question Type	Total No	No of question to be	Marks for each	<b>Total Marks</b>
	Of questions	answered	Question	
Short answer	10	10	3	30
Short essay	7	5	6	30
Long essay	3	2	10	20

For the successful completion of a programme and award of the Degree, a student must pass all the courses satisfying the minimum credit requirement and must score a minimum CCPA of 5.00 or an overall grade of D.

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#### COURSE SUMMARY

#### 1. introduction

The professional knowledge of both current and emerging technological process and systems regarding the hotel management and catering is very essential in the developing process of our country with a proper balancing of the core, specialized and elective subjects and suitable integration of meaningful practical and field exercises and challenging project activity the Hotel Management and Catering Science curriculum will provide the students with relevant professional knowledge and also develop in them the capacity to tackle unknown problems and help them to acquire sound professional ethics and an awareness of their obligations to society.

#### 2. The Course

Bachelor of Hotel Management and Catering Science (BSc.HM & CS) is a job oriented course, which has a lot of job prospects in India and abroad. By understanding the ever increasing demand, for talented and creative professionals in hotel industries and tourism, which accelerate the economic development of a Country Government of Kerala and University of Kerala have given, approval for a regular course in Hotel Management and Catering Science (BSc.HM & CS Course).

#### **3. Duration of the Course**

This is a 3 year course divided into 6 semesters with University Examination

#### 4. Eligibility for Admission

Any Student who has passed 10 + 2 or any examination declared equivalent thereto with minimum 45% or above are eligible for admission for the course.

### Semester I

Sl No	Course	Title	
1	Core	BH 1141	Front Office Operations I
2	Language	EN 1111.4	English I Listening & Speaking Skills
3	Foundation	BH 1121	Elementary French
4	Core	BH 1142	Food Production and Pattisserie I
5	Core	BH 1143	Food and Beverage Service I
6	Core	BH 1144	House Keeping Management I

#### Semester II

Sl No	Course	Title	
1	Core	BH 1241	Front Office Operations II
2	Language	EN 1211.4	English I Listening & Speaking Skills
3	Foundation	BH 1221	Fundamentals of Computer
4	Core	BH 1242	Food Production and Pattisserie II
5	Core	BH 1243	Food and Beverage Service II
6	Core	BH 1244	House Keeping Management II

### Semester III

Sl No	Course	Title	
1	Core	BH 1341	Principles of Nutrition
2	Core	BH 1342	Hotel Accounting I
3	Compl	BH 1331	Applications of Computer & Cyber - Law
4	Core	BH 1343	Food Production and Pattisserie III
5	Core	BH 1344	Food and Beverage Service III
6	Core	BH 1345	Hotel Engineering
7	Core	BH 1346	Hotel Law I

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### Semester IV

Sl No	Course	Title		
1	Core	BH 1441	Hotel Accounting II	
2	Core	BH 1442	Food Production and Pattisserie IV	
3	Core	BH 1443	Food and Beverage Service III	
4	Core	Accommodation Operation &BH 1444Management		
5	Core	BH 1445	Environmental Studies	
6	Compl	BH 1431	Principles of Management	
7	Compl	BH 1432	Principles of Food Microbiology	
8	Core	BH 1446 Research Methodology		

### Semester V

Sl No	Course	Title		
1	Open	BH15 51	Hospitality Management	
2	Core	BH 1541	Food Production and Pattisserie V	
3	Core	BH 1542	Food and Beverage Management	
4	Core	BH 1543	Facility Planning	
5	Compl	BH 1531	Financial Management	
6	Core	BH 1544	Human Resources Management	
7	Core	BH 1545	Marketing and Sales	
8	Core	BH 1546	Aviation and Cruis line Management	

### Semester VI

Sl No	Course	Title		
1	Core	BH 1641 IET, Report & Self Study - F & B Production		
2	Core	BH 1642	IET, Report & Self Study - F & B Service	
3	Core	BH 1643 IET, Report & Self Study - Housekeeping		
4	Core	BH 1644	IET, Report & Self Study - Front Office	
5	Core	BH 1645 Project Reprot		
6	Elective	BH 1661	Self Study (Hotel Management)	

# **SEMESTER – 1 SYLLABUS**

#### <u>SEMESTER – I</u>

Core course: BH 1141	: Front Office Operations I
No. of instructional hours per week	: 4 hours theory and 2 hours practical
No. of credits	:4

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#### 1. <u>Introduction to the Hospitality Industry</u>

- History and growth of Hotel industry
- Definition Hospitality and Hotels
- Classification of Hotels based on Size, Clientele, Location, Ownership. Alternative Accommodation. Types of Guest Rooms, Type of Room Rates
- Hotel Organization Major Departments of a Hotel.
- Front Office Organization Sections and Layout of Front Office, Organization Chart, Duties and Responsibilities of Front Office Manager, Receptionist, Reservation Agent, Cashier, Bell Boy, Telephone Operator, Night Manager.

#### 2. <u>Guest Cycle, Front Office Operation : Reservation</u>

- Guest Cycle Pre-Arrival, Arrival, Occupancy, Departure.
- Reservation and Types of Reservations Guaranteed Reservations and Non-Guaranteed Reservation.
- Modes and Sources of Reservation
- Processing Reservation Request Receiving Reservation Inquiries, Determining Room Availability, Accepting Or Denying Request, Reservation Confirmation, Amending Reservation, Reservation Cancellation.
- Reservation Reports, Waiting List, Group Reservation, Over Booking
- Importance of Reservation for Hotel and Guest
- Potential Reservation Problems Errors in Reservation Records, Misunderstanding Due to Industry Jargon, Miscommunication due to Failure of Computerized Reservation System.

#### 3. <u>Front Office Operation : Registration</u>

- Pre Registration and Registration Form C and Guest Registration Card (GRC)
- Registration Procedure Receiving And Identifying Guest, Registration Records, Room and Rate Assignment, Establishment the Mode of Settlement of Bills, Issue Room Keys, Fulfilling Special Requests.
- Registration Procedure for Walk-in Guest, VIPs, Groups, Scanty Baggage and Foreign Nationals
- Latest Trends Self Registration

#### 4. <u>Front Office Responsibilities</u>

- Guest Services Mail and Message Handling, Control of Keys, Guest Paging, Safe Deposit Locker, Left Luggage Handling, Wake-up Call
- Front Office Communication– Log Book, Information Directory
- Interdepartmental Communication Housekeeping, Food and Beverage Service, Engineering and Maintenance, Other Revenue Centers
- Guest Complaint Complaint Handling Follow Up Procedures

#### 5. <u>Emergency Procedures</u>

• Keys and Key Control System

- Importance of Safety and Security in Hotels
- Emergency Procedures Medical Emergency, Fire, Robbery ,Bomb Threat, Employee Safety

#### 6. <u>Telephone Services</u>

• Telephone Etiquette, Telephone Manners, Guest Telephone Service, Voice Mail, PBX, PABX, EPBAX

#### **PRACTCIALS**

- 1. Handling guest mail (of guests who have checked out, in-house and expected)
- 2. Handling messages and paging for guests.
- 3. Handling guest enquiries
- 4. Preparing and filling up reservation forms
- 5. Role play of accepting reservations, walking a guest
- 6. Preparing and filling up registration card
- 7. Role play for different check ins as Walk in, FIT, FFFIT, Corporate, VIP, CIP and Groups
- 8. Handling of different situations at the reception counter

#### Reference Books

- 1. Front office operations by Colin Dix & Chirs Baird
- 2. Hotel Front office management by James Bardi, VNR
- 3. Managing front office operations by Kasavana & Brooks
- 4. Front office training manual by Sudhir Andrews, Tata McGraw Hill
- 5. Managerial accounting and hospitality accounting by Raymond S Schmidgall
- 6. Managing computers in hospitality industry by Michael Kasavana and Cahell
- 7. Effective Front Office Operation, Michael Kasavana, CBI-VNR
- 8. A Manual of Hotel Reception, J.R.S.Beavis & S.Medlik, Heinemann Professional
- 9. Accommodation Operation Front Office, Colin Dix, Pitman
- 10. Principles of Hotel Front Office Operations , Sue Baker& Jeremy Huyton, Continuum
- 11. Front Office Procedures, Social Skills and Management, Peter Abott & Sue Lewry, Butterworth Heineman

Foundation Course: BH 1121	:	<b>Elementary French</b>
No of Instructional hours per week	:	2 hours theory
No. of credits	:	2

- 1. **Introduction to The Language** Letters of the alphabet their pronunciation distinction between vowels and consonant words the use of different accents
- **Greetings** Self Introduction, Presenting And Introducing Another Person, Salutation, Greetings, How To Greet And Reply To A Greeting, At The Reception Desk Of A Hotel, In the restaurant, Names, Professions, Fruits and Vegetables, Beverages
- **Introduction to the number** 1 to 100
- Common French Terms related to Hotel Industry
- Receipes

Suggested Book: French Companion [Part I & II] By Prof.T.K.Thamby - Publisher: Polyglot House, Chennai

Core Course: BH 1142	:	Food Production and Patisserie I
No of Instructional hours per week	:	4 hours theory and 2 hours practical
No. of credits	:	4

#### 1. Introduction to professional Cookery:

- **Culinary history**: Origin of modern cookery modern developments bf equipments and food crafts. Levels of skills and experience- attitudes and behaviour in the kitchen- personal hygiene-uniforms.
- Heirarchy and kitchen staffing
- Classical brigade modern staffing in various categories of hotels role of executive chef duties and responsibilities of various chef co operation with other departments

#### 2. Kitchen organization and layout

• General layout of kitchen in various organisations- receiving and prepration area- storage area- cooking areas-service and washing areas- obtaining supllies

#### 3. Equipment and Fuel

• Heat production equipment - cold production equipments- ancillary equipments- knivesutensils- pots and pans - pastry and bakery equipment- cleaning fixed and portable equipment- various fuels used- advantages and disadvantages of each

#### 4. Aims, Objectives and Methods of Cooking food:

- Aims and objectives of cooking food- various textures- various consistencies- Techniques used in preparation. Methods of cooking roasting -grilling- frying-baking-broiling-poaching -boiling-principles of each of the above-care and precautions to be taken with each method.
- 5. Basic principles of Food production: Vegetables Fruits and Sticks
  - Vegetables and fruit cookery- classification of vegetables- effects of heat on vegetables- cuts of vegetables- classification of fruits- uses of fruits in cookery- salads and salad dressing. Stocks definition of stock- types of stocks- preparation of stock-recipes- storage of stocks- uses-care and precautions in stock making.
- 6. Basic principles of food production : Soups and Sauces
  - Soups- classification- recipes for mother sauces- derivatives
- 7. Basic principles of Food production : Meat Cookery
  - Introduction to meat cookery- cuts of beef/ veal cuts of lamb/ mutton- cuts of pork- variety meats(offal)
- 8. Basic Principles of food production : Fish Mongery
  - Introduction to fish mongery- classification of fish-cuts of fish- selection of fish- shell fish-cooking of fish ( effects of heat)

#### 9. Basic principles of food production : Egg Cookery

- Introduction to egg cookery- structure of an egg selection of egg- uses of egg cookerymethods of cooking egg.
- 10. Bread Making (role of each ingredient, bread faults)

#### PRACTCIAL

- I. PRACTICAL
- Familiarization Of Kitchen, Equipment's& Ingredients
- Demonstration & Practice Of Standard Cuts Of Vegetable
- II. PRACTICAL
  - Demonstration and practice preparation of stocks and sauces
- III. PRACTICAL

• Demonstration and practice of soups and bread rolls

#### IV. PRACTICAL

• Demonstration & practice of bread rolls and desserts.

Practical-5	Practical-6	Practical-7
Menu-1	Menu-2	Menu-3
Bread rolls White stock Tossed vegetables White sauce	Fancy roll Brown sock Glazed vegetables Brown sauce	Bread sticks Fish stock Roast potato Mayonnais sauce
Practical-8	Practical-9	Practical-10
Menu-4	menu-5	Menu-6
Croutons &Bread Rolls Veloute sauce Hollandaise sauce Roast chicken	Cream soup Pasta in cream sauce Fish gratin Lemon Jelly	Veg Clear Soup Poached Egg Potato Lynoise Chicken ala Grilya Crème Brule

Books recommended:

- 1. Practical Cookery, Victor Ceserani & Ronald Kinton, ELBS
- 2. Theory of Catering, Victor Ceserani & Ronald Kinton, ELBS
- 3. Theory of Catering, Mrs. K.Arora, Frank Brothers
- 4. Modern Cookery for Teaching & Trade Vol. I, Ms. Thangam Philip, Orient Longman
- 5. Herrings Dictionary of Classical & Modern Cookery, Walter Bickel
- 6. Chef Manual of Kitchen Management, Fuller, John
- 7. The Professional Chef (4th edition), Le Rol A.Polsom
- 8. The Book of Ingredients, Jane Grigson
- 9. Indian Food, K.T.Achaya, Oxford

Core Course: BH 1143	:	Food and Beverage Service I
No of Instructional hours per week	:	4 hours theory and 2 hours practical
No. of credits	:	4

**1. Introduction to F & Service -** Role of catering establishment in the travel and tourism industry. Classification of catering establishments - commercial (residential and non-residential) - welfare (industrial, institutional and transport) -career opportunities in each.

2. Departmental organization and staffing:Organization of food and Beverages Service department of a hotel- principal staff of various types of F & B service operations- duties and responsibilities of F & B service staff- attributes of a good waiter- interdepartmental relationship ( within F & B department and with other department)

- **3.** Food and Beverages services areas and ancillary departments Types of F & B outletsspecialty restaurant - coffee shop - banquets/ functions- room service- cafeteria- grill room discotheques - night clubs - bar - outdoor catering - garden cafe/pool side - Ancillary departments - pantry- food pickup areas - stores - linen room - plate room - wash up - kitchen stewarding.
- 4. Food and Beverages Service equipment Classification of equipment familiarization of equipment criteria for selection of equipment crockery tableware (silver and stainless steel)- glassware linen including furnishings other equipment care and maintenance of equipment including silver cleaning
- 5. Types of meals and Menu Planning Types of meals breakfast lunch- dinner supper brunch- high tea afternoon tea Origin of the menu- menu planning objectives menu terminology basic types of menus general menu planning sequence of course Courses of French classical menu table d'hôtel menu (Indian and Continental) a la carte menu (Indian, Continental and Chinese)
- 6. Planning menus western and Indian Covers & Accompaniments continental and Indian Breakfast menus English, American, Continental and Indian.
- 7. Mise –en scene and Mise-en place (including arrangement of aide-boards), Laying tables for different meals and menus-laying tablecloth-folding serviettes

#### PRACTICALS:

- 1. Familiarization of equipments
- 2. Methods of cleaning Care & maintenance of equipment including cleaning/polishing of EPNS items by Plate Powder method Polivit method Silver dip method Burnishing machine
- 3. Arrangement of side boards- different types and uses
- 4. Laying table cloth- relaying a table cloth
- 5. Laying various covers
- 6. Napkin folds- lunch folds- dinner folds- breakfast folds
- 7. Receiving guests- procedures
- 8. Taking Food and Beverage Orders in Restaurants
- 9. Service of meals Pre Plated service of all courses

#### **Reference Books:**

- Food & Beverage Service Training Manual-Sudhir Andrews, Tata McGraw Hill
- Food & Beverage Service –Lillicrap & Cousins, ELBS
- Modern Restaurant Service John Fuller, Hutchinson
- Food & Beverage Service Management-Brian Varghese
- Introduction F& B Service-Brown, Heppner & Deegan
- Professional Food & Beverage Service Management Brian Varghese

Core Course: BH 1144	:	House Keeping Management I
No. of Instructional hours per week	:	4 hours theory and 2 Hours Practical
No of credits	:	4

#### 1. Introduction

The role housekeeping in hospitality operation -types of hotels and services offered - types of rooms- role of housekeeping in guest satisfaction and repeat business.

#### 2. Organisation of Housekeeping department

Hierarchy in small , medium large and chain hotels - identifying housekeeping

responsibilities- personality traits of housekeeping personnel- duties and responsibilities of housekeeping staff- layout of the house keeping department

#### 3. Cleaning equipment and cleaning agents

Cleaning equipments- general criteria for selection- manual equipment- mechanical equipment- use and care of equipment. Cleaning agents- classification - polishes-floor seals- use, care and storage of cleaning agents- distribution and control

#### 4. Composition, Care and Cleaning of different surfaces

Metals- glass-plastics-ceramics- wood-wall finishes- floor finishes-leather

#### 5. Cleaning Organization

Principles of cleaning - hygiene and safety factors in cleaning - frequency of cleaning design features that simplify cleaning.

Daily cleaning of rooms- check out room- step by step procedure including bed making - occupied room- vacant room- evening service

Periodical cleaning- tasks, schedules and records

Special cleaning - tasks, schedules and records

Public area cleaning- front of the house areas- back of the house areas- high traffic area.

#### 6. Standard supplies.

Ordinary rooms- VIP rooms - VVIP rooms- guest's special requests

#### 7. Maids service room

Location, layout and essential features- chambermaid's trolley

#### 8. Keys

Types of keys- computerized key cards- key control

#### 9. Daily Routine and clerical work of Housekeeping department

Daily routines- reporting staff placement - room occupancy report- guest room inspection- entering checklist, floor register, work orders and log sheet Clerical work-lost and found register and enquiry file- maid's report and housekeeper's report- handover records- guest special cleaning - call register-VIP lists- Lost and Found- procedure and records.

#### 10. Interrelationships

Relationships with other departments - front office- maintenance- food and beverage- security-stores- accounts- personnel

#### PRACTICAL

- Identification, use and care of cleaning equipments
- Identification of cleaning agents
- Identification of hotel linen
- Bed Making
- Cleaning of guest rooms- Departure, Occupied and Vacant

#### **Reference Books:**

- Hotel Housekeeping Training Manual ,Sudhir Andrews
- Text book of Hotel House Keeping Management & Operations, Sudheer Andrews, The Mc Graw Hill Companies
- Hotel House Keeping, A Training Manual, Second edition, Sudheer Andrews, The Mcgraw Hill Companies
- Hotel House Keeping Operations and Management, Mr. G Raghubalan, Smritee Raghubalan,
- Oxford Higher Education

# **SEMESTER – 2 SYLLABUS**

# **II SEMESTER**

Core Course: BH 1241	:	Front Office Operation II
No. of Instructional hours per week No of credits	:	4 hours theory and 2 Hours Practical 4

#### 1. Front Office Accounting

- Functions of Front Office Accounting
- Accounting Fundamentals Guest and Non Guest Accounts, Folios, Vouchers, Guest Ledgers and City Ledgers
- Front Office Accounting Cycle Creation, Maintenances and Settlement of Accounts, Charge Privileges, Credit Monitoring
- Tracking Transactions Cash Payment, Charge Purchase, Accounts Correction, Account Allowance and Cash Advance
- Methods of Payment Cash, Credit, Traveler's Cheque, Credit Card, Direct Billing

#### 2. <u>Checkout and Settlements</u>

- Departure Procedures Individual Guest and Group
- Methods of Settlements Cash and Credit Settlement, Direct Billing, Combined Settlement Methods. Procedures for accepting Travelers Cheque, Foreign Currency, Credit Card and Direct Billing
- Late Checkout, Express Checkout and Self Checkout
- Unpaid Account Balance, Collection of Accounts, Accounts Aging

#### 3. <u>Night Audit</u>

• Definition – Audit and Night Audit, Functions of Night Audit, Duties and Responsibilities of Night Auditor, Night Audit Procedure

#### 4. <u>Front Office Computer Applications</u>

- Property Management System and Selection of PMS
- PMS Application in Front Office Reservation Module, Registration Module, Cashier Module, Telephone Module, Housekeeping Module, POS Module, Reports Module, Guest History Module, Employee Information Module etc
- Different PMS Amadeus, Fidelio, Micros etc

#### 5. Front Office Records And Equipments

- Records- Guest Histories
- Equipments Room Rack, Mail, Message and Key rack, Reservation Racks, Information rack, Cash Register and Other important equipments in Front Office

#### 6. Tourism study

- Definition Tourism
- Positive and Negative Impact of Tourism Economic, Social, Cultural and Environmental
- Eco Tourism and Principles of Eco Tourism
- Itinerary and Tour Package
- International Organizations- W.T.O, I.U.O.T.O, P.A.T.A, W.A.T.A, U.F.T.A.A, T.A.A.I , A.S.T.A

#### 7. Foreign Exchange, Passport, Passport and Visa

- Definition -Foreign Currency, Visa and Passport
- Foreign Currency exchange procedures in Hotel
- Passport and Types of Passport

- Visa and Types of Visa
- Landing permits
- 8. Planning and Evaluation
  - Management Functions
  - Forecasting Room Availability Useful Forecasting Data, Percentage of Walk-ins, Percentage of Overstay, Percentage of Under Stay, Forecast Formula, Sample Forecast Forms,
  - Evaluating front office operations Occupancy Percentage and Double occupancy percentage, Average Daily Rate, Average Room Rate Per Guest, Rev-Par
  - Yield Management Benefits of Yield Management

#### **PRACTCIALS**

- 1. Handling check-outs
- 2. Handling payment of bills through (Cash, Credit Cards, Travelers Vouchers, Bill to Company and Foreign Currency)
- 3. Handling Express check outs and late charges
- 4. Prepare and Post charges in guest folio
- 5. Preparation of Itinerary
- 6. Preparation of Tour Package
- 7. Prepare V.P.O. and Miscellaneous vouchers
- 8. Prepare Allowance vouchers

#### Reference Books

- 12. Front office operations by Colin Dix & Chirs Baird
- 13. Hotel Front office management by James Bardi, VNR
- 14. Managing front office operations by Kasavana & Brooks
- 15. Front office training manual by Sudhir Andrews, Tata McGraw Hill
- 16. Managerial accounting and hospitality accounting by Raymond S Schmidgall
- 17. Managing computers in hospitality industry by Michael Kasavana and Cahell
- 18. Effective Front Office Operation, Michael Kasavana, CBI-VNR
- 19. A Manual of Hotel Reception, J.R.S.Beavis & S.Medlik, Heinemann Professional
- 20. Accommodation Operation Front Office, Colin Dix, Pitman
- 21. Principles of Hotel Front Office Operations, Sue Baker& Jeremy Huyton, Continuum
- 22. Front Office Procedures, Social Skills and Management, Peter Abott & Sue Lewry, Butterworth Heineman

Foundation Course: BH 1221	:	Fundamentals of Computer
No. of instructional hours per week	:	2 hours theory
No. of credits	:	2

- 1. Introduction To Computers What is a computer, Block Diagram, Components of a computer system, generation of computers, programming languages, generation of languages, storage devices
- Operating Systems Introduction, Functions, types, Components, Case Studies DOS, Windows
- 3. Computer Networks Characteristics, Network Cables, Distributors, Router, Network Card

- 4. Computer Memory RAM, ROM, Memory Units, Different Ports in Computer, Computer Hardware, Motherboard.
- 5. Introduction To Internet What is Internet, Network, Network of Networks, WWW, Search Engines, e-mail, websites, Introduction to e-commerce

#### Suggested books:

- Fundamental of Computers, V.Rajaraman, Prentice Hall India 1
- Mastering Microsoft Office, Lonnie E. Moseley & David M. Boodey, BPB Publication 1

Core Course: BH 1242	:	Food Production and Patisserie II
No. of Instructional hours per week	:	4 hours theory and 2 Hours Practical
No of credits	:	4

- 1. Basic menu planning Types of menu, menu planning principle
- 2. Bakery Pastry-recipes and methods of preparation-differences-uses of each pastry-care to be taken while preparing pastry-role of each ingredient-temperature of baking pastry-role of each ingredient-temperature of baking pastry-simple breads-principles of bread making-simple yeast breads-role of each ingredient in bread making-baking temperature and its importance Pastry creams-basic pastry crams-uses in confectionery-preparation and care in production.
- **3. Basic commodities : Rice, Cereals, Pulses -** Classification and identification-cooking of rice, cereals and pulses-varieties of rice and other cereals : Flour-Structure of wheat-types of flour-processing of wheat flour-uses of flour in food production-cooking of flour.
- 4. Shortenings (Fats and Oils) and Raising agents.- Role of shortenings-varieties of shortenings-advantages and disadvantages of using different shortening-fats and oil-types and varieties. Classification of raising agents-role of raising agents-action and reactions, Sugar-importance of sugar-types of sugar-cooking of sugar –uses.
- 5. Basic commodities : milk, Butter, Cream, Cheese Processing of milk-pasteurizationhomogenization-types of milk-skimmed, condensed –nutritive value, Butter-Processing of butter – types of butter, Cream-processing of cream – types of cream, Cheese – processing of cheese –types of cheese –classification of cheese –cooking of Cheese- uses.
- 6. Basic Indian Cookery Condiments and spices introduction to India food spices used in Indian Cookery-role of spices in Indian cookery Indian equivalent of spices (names), Basic masalas blending and spices and concept of masala-different masalas used in Indian cookery-wet masalas and dry masalas-different masalas-varieties of masalas available in regional areas-special masala blends. Thickening agents-role of thickening agents in Indian cuisine-types of thickening agents.

#### PRACTICAL

Practical-1	Practical-2	Practical- 3
Standard Cuts Of Fish Type of meat cuts	Egg preparations Hard boiled egg	Menu 1
Marinade	Soft boiled egg	Creme of Pumpkin/ Bread
	Fried egg	Roll
	Sunny side up	Chicken ala king
	Poached egg	Glazed carrot
	Scrambled egg	Grilled Tomatoes
	Omlette (plain & stuffed)	Cream caramel

En cocotte	
Practical-6	Practical-7
Menu 4	St germon soup/ bread roll
Crème de volaille princess/	Braised beef
bread roll	Boquetiere de legumes
Ragout de boeuf	Pommes chateau
Haricots beans	
Russian salad	
Blancmange	
Practical-9	Practcal 10
Genoise Sponge	Apple pie
Melting Moments	Sweet Bread
Ice cream	Butter Cookies
	Practical-6 Menu 4 Crème de volaille princess/ bread roll Ragout de boeuf Haricots beans Russian salad Blancmange Practical-9 Genoise Sponge Melting Moments

Books recommended:

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- Art of Indian Cookery, Rocky Mohan, Roli
- Prasad Cooking with Masters, J. Inder Singh Kalra, Allied
- Modern Cookery (Vol-I) For Teaching & Trade, Philip E. Thangam, Orient Longman
- Larousse Gastronomique-Cookery Encyclopedia, Paul Hamlyn
- The Complete Guide to the Art of Modern Cookery, Escoffier

Core Course: BH 1243	:	Food and Beverage Service II
No. of instructional hours per week	:	4 hours theory and 2 hours practical
No. of credits	:	4

- 1. Restaurant service and room service Restaurant service-laying tables and different napkin fold-forms and methods of service-Receiving the guest and social skills-service at a table-arranging side boards-Room service-types of room service-centralized, decentralized and mobile-trolley and Tray set –up House rules of room service-room service menus-Taking orders and presenting bills.
- 2. Restaurant reservation systems Taking reservations, receiving the guest-methods of service-buffet-banquet-special service.
- **3.** Non-alcoholic beverages Classification-nourishing, stimulating, refreshing, Tea-origin and manufacture-types of tea-manufacturing brands preparation and service. Coffee-origin and manufacture-types of coffee-manufacturing brands-preparation and service. Cocoa and malted

beverages-origin and manufacture-types and brands-preparation and Service-Milk based drinks –juices-soft-drinks-brands-mineral and tonic water (popular brands)

- 4. **Tobacco** History-processing of tobacco for cigarettes and cigar-storage and service of cigars and cigarettes.
- Simple Control Systems Necessity of a good control system-functions of a control system, Food and beverages control cycle-Cash handling equipments-theft control procedures -Record keeping
- 6. Alcoholic Beverages Introduction & Definition, Classification, Production
- 7. **BEER** Introduction and Definition, Types of Beer, Definition and Production of Each, Type, Storage, A) Bottled & Canned Beers, B) Draught Beers
- 8. Cidars, Perry and Sake

#### **PRACTCIALS**

- 1. Service of Non- Alcoholic Beverages
- 2. Service of Tobacco
- 3. Room Service Order taking
- 4. Making Room Service KOT, Room Service, Presenting bills in rooms
- 5. Service of Beer

#### **Reference Book**

- Food & Beverage Service Training Manual-Sudhir Andrews, Tata McGraw Hill
- Food & Beverage Service –Lillicrap & Cousins
- Modern Restaurant Service John Fuller
- Food & Beverage Service Management-Brian Varghese
- Introduction F& B Service-Brown, Heppner & Deegan
- Professional Food & Beverage Service Management Brian Varghese
- Food Service Operations Peter Jones & Cassel
- Master Dictionary of Food & Wine-Joyce Rubash
- Menu planning-Jaksa Kivela, Hospitality Press
- The Restaurant (From Concept to Operation)-Lipinski
- Professional Food Service- Sergio Andrioli & Peter Douglas, Heinemann Professional
- Profitable Menu Planning -John Drysale

Core Course: BH 1244	:	House Keeping Management II
No. of instructional hours per week	;	4 hours theory and 2 hours practical
No. of credits	:	4

- **1. Hotel linen -** Classification of linen-bed and bath linen-their sizes-table linen-their sizes , Selection criteria for items-bed sheets-pillowcases-towels-bath mats -tablecloths –serviettes..
- 2. Linen Room Location and layout-equipments, Activities of the linen room –purchase of linen-linen hire-quality and quantity-storage and inspection –issuing of linen to floors and departments-procedure and records –dispatch to and delivery from laundry room-procedure and records –stock taking-procedure and records-condemned linen-procedure and records-marking and monogramming. Duties and responsibilities on linen room staff- linen keeper-linen room attendant –routine duties and records maintained.

- **3.** Sewing Room Activities and areas provided –equipment required-tailors and seamstressestasks-performed
- **4.** Uniforms and uniform room Purpose of uniforms-number of sets –issuing procedureexchange of uniforms designing uniforms-functional and aesthetic consideration. Layout and planning of the uniform room.
- **5.** Laundry Importance and principles –flow process of industrial laundering-stages in the wash cycle layout of the laundry agents dry cleaning. Guest laundry –services offered collection and delivering laundry-care in laundering guest articles.
- 6. Stain Removal Definition of stain-importance of immediate action-classification of stainsclassification of stain removal methods-general rules of stain removal-specific agents used for stain removal.
- 7. Flower arrangement and special decorations Purpose of flower arrangement placement and level of placement equipment and materials required conditioning of plant material styles of flower arrangement: western, Japanese, Freestyle and abstract principle of flower arrangement.
- **8.** Occasions for special decorations materials used and cost incurred –theme decorations: suspended, floor, wall, and centerpieces.
- **9.** Contract services Types of contract services –guidelines for hiring contract services advantages and disadvantages of contract services.
- **10. Safety, Security and Conservation -** Safety awareness and accident prevention –fire prevention and firefighting –first aid
- **11.** Crime prevention –dealing with emergency situations

#### **PRACTCIALS**

- 1. Identification of Different linens
- 2. Uniform and linen exchange procedure
- 3. Flow process of a laundry
- **4.** Fire prevention and fire fighting
- **5.** Identification of Stain and Stain removel
- **6.** Flower arrangement
- 7.

#### **Reference Books:**

- Hotel Housekeeping Training Manual ,Sudhir Andrews
- Text book of Hotel House Keeping Management & Operations, Sudheer Andrews, The Mc Graw Hill Companies
- Hotel House Keeping, A Training Manual, Second edition, Sudheer Andrews, The Mcgraw Hill Companies
- Hotel House Keeping Operations and Management, Mr. G Raghubalan, Smritee Raghubalan,
- Oxford Higher Education

# **SEMESTER – 3 SYLLABUS**

# **Semester – III**

Core Course: BH 1341	:	Principles of Nutrition
No. of instructional hours per week	:	3 hours theory
No. of credits	:	2

- 1. NUTRITION <u>-</u> Definition, Importance, Classification of Nutrients and Foods, Function of Food to Man.
- **2.** Carbohydrates Composition, Classification, Functions, Food Source, Daily Requirements, Excess And Deficiency.
- **3.** Fats Compositions, Classification, Functions, Food Source, Daily Requirements, Excess and Deficiency.
- **4.** Energy Definition, energy requirements, factors affecting it. Energy requirements for various age groups. Proportionate distribution of calories nutrients using food value tables –recipes .Effect of energy imbalance
- 5. Minerals Classification, Functions, Food Source, Daily Requirements, Excess And Deficiency
- 6. Vitamins Classification, Functions, Food Source, Daily Requirements, Excess And Deficiency.
- 7. **Deficiency** -Water-Soluble Vitamins Classification, B-Complex (Functions, Food Source, Daily Requirements). Ascorbic Acid (Functions, Food Source, Daily Requirements). Nutritional Losses upon Cooking and Ways to Prevent it
- **8. Water** Importance, water balance, Deficiency and Oral Rehydration. Digestion and Absorption. Mechanical and Chemical Breakdown of Nutrient (CHO, FATS, PROTEIN) and its Absorption.
- **9. Food Groups-** Nutritive Value of Foods (Cereals, Pulses Vegetables, Fruits Milk and Milk Products, Meats, Poultry, Fish, Eggs, Condiments, Spices, Sugar, Jaggery, And Alcoholic Beverages)

References:

- M. Swaminathan Food science, chemistry and experimental foods -The Bangalore Printing & Publishing Co., Ltd.
- B. Sivasankar Food Processing and Preservation, Prentice Hall of India Pvt Ltd., New Delhi.
- B. Srilekshmi, Dietetics, New Age international (P) ltd.
- G. Subbulakshmi, Shobha A Udipi, Food Processing and Preservation, New Age International Pvt Ltd.
- Clinical dietetics and nutrition F.P. Anita
- Normal and therapeutic nutrition H. Robinson
- Microbiology Anna K. Joshua
- Food & Nutrition Dr M. Swaminathan.
- A text book of Bio Chemistry.- A. V. S. S. Rama Rao
- Catering Management and Integrated Approach-Mohinseth, Surjeet Muthan
- Food Facts & Principles Manay & Shalakshara Swamy
- Food Science Sumatl1i Mudambi
- Nutritive value of Indian foods. Indian Council of Medical Research

- Fundamentals of food and nutrition, Mudambi & Rajagopal, 411) Edition, 2001.
- Principles of Food Technology by P. J. Fellows
- Handbook of analysis and Quality Control for fruits and vegetables by Rangana. S (Tata McGraw Hill)
- Sensory Evaluation by Amerine (Academic Press)
- Principles of Food Science by Borqstorm and MacMillon Food Science by Potter & Hotchkiss.

Core COURSE: BH 1342	:	Hotel Accounting I
No. of Instructional hours per week	:	2 hours theory
No. of credits	:	2

#### 1. ACCOUNTING THEORY AND PRACTICE

What is Accounts- Book keeping-Double Entry Book Keeping-Accounting Concepts and Principles-Accounting Rules

#### 2. TRANSACTION ANALYSIS

Recording business Transactions-Using Debits and Credits Journalizing entries for common business Transaction

#### 3. PROOF OF TRANSACTIONS

Nature and usage-Cash Bills-Receipts-Voucher-Pay-in-slip-Debit Note-credit Note

#### 4. <u>REVENUE AND EXPENSES, ASSETS & LIABILITIES</u>

Revenue classification, Expense classification-Asset classification-Liability classification (Theory Only)

#### 5. FOOD AND BEVERAGES ACCOUNT

Restaurant bills-Kitchen Order Ticket (Practical Problem) - Room Sale accounting-Types of Rooms-Types of Guests-Guest Records (Theory Only)

#### **BOOKS:-**

- Gleson Ozi D'Cunha
- Prasannakumar J P
- Linda Nalini Daniel
- Mruthyunjaya v. Pagad

# Core Course: BH1343:Food Production and Patisserie IIINo. of instructional hours per week:4 hours theory and 2 hoursNo. of credits:4

#### I. Quantity Food Production

#### 1. Equipments

- Equipments used in quantity kitchen (both hot and cold kitchens)
- Care maintenance and storage of equipments.
- Specifications when purchasing equipments
- List of equipment manufactures.
- Modern equipments in the market.

#### 2. Indenting

- Principles of Indenting
- Quantities / portions for bulk production

- Practical difficulties involved in indenting
- **3.** Volume Feeding Institutional & industrial feeding Banquet and buffet Quantity food Production.
- **4.** Costing Basic Costing Food costing –Food cost control Problems related to food costing Importance & relevance of food costing.
- II. INDIAN COOKERY / REGIONAL COOKING STYLES Introduction to regional cooking Factors affecting eating habits Heritage of Indian cuisine – Differentiation of regional cuisine Indian breads – Indian sweets

**States** - Andhra Pradesh, Bengal, Goa, Gujarat, Karnataka, Kashmir, Kerala, Madhya Pradesh, Maharashtra, Bengal, Punjab, Rajasthan, Tamil Nadu and Uttar Pradesh

#### PRACTCIALS

- Preparation of gravies and commonly used Indian masalas
- Thandoori Preparations
- Planning elaborate Indian menus up to 20 potions

Menu-1	Menu-2	Menu-3
Bhature Jeerapulao Murg kasoori Punjabi chana Gajrela	Onion raitha Kerala wheat paratha Ghee rice Malabar Chicken Curry/Beef Ulathiyathu Vegetable Korma Rice Payasam	Tomato shorba Hyderabadi Mutton Biryani/ Onion Raitha Bagara baingan Moongdal halwa
Menu-4	Menu-5	Menu-6
Butter naan Subz masala pulao Murgh makhani Aloo palak Coconut burfi	Green salad Choppathi Veg.briyani Mutton Rogan Josh Dal fry	Pannerkulcha Veg.shahi korma Peas pulao Nilgiries Chicken Korma Badusha
Menu-7	Menu-8	Menu-9
Alooparatha Kadai vegetable Ghee rice Murghhariyali/ Beef Vindaloo Shahitukra	Methiki roti Gobi masala Kashmiripulao Shahi chicken korma Double kametha	Achari paratha Phool kapir dalna Bengali Bhog Khichari Chicken kasha/ Prawn Masala Basundi

#### **Books recommended:**

- A Taste of India, Madhur Jaffrey, Pavillion
- Dastarkhwan-e-Awadh, Sangeeta Bhatnagar & R.K.Saxena, Harper Collins
- Prashad, Cooking with Masters, J.Inder Singh Kalra, Allied
- Zaika, Sonya Atal Sapru, Harper Collins
- Punjabi Cuisine, Premjit Gill
- Hyderabadi Cuisine, Pratibha Karan, Harper Collins

- Modern Cookery for Teaching & Trade, Ms. Thangam Philip, Orient Longman
- Wazwaan, Rocky Mohan, Roli & Janssen

Core course: BH 1344	:	Food and Beverage service III
No. of instructional hours per week	:	4 hours theory and 2 hours practical
No. of credits	:	4

- WINES Introduction & Definition Classification Table/still/Natural Fortified Sparking

   Aromatized Wine producing Countries of The World Including India. Principal Wine
   Regions Of France, Germany, Italy, Spain, Portugal, New World wine producing countries etc
- SPIRITS Introduction and Definition, Production of Spirit, Pot-Still method, Patent still Method, Whisky, Rum, Gin, Brandy, Vodka, Tequila, Other spirits, Proof spirits - Different Scales, Service
- 3. APERITIFS Definition, Types, Service
- 4. LIQUEURS Definition, Production, Service
- 5. **COCKTAILS -** Definition, History in Brief, Classification, Cocktail Bar Equipment, Preparation & Service of Cocktails, Mock tails/Specially Coffees

#### 6. GLOSSARY OF TERMS RELATED TO ALCHOLIC BEVERAGES

#### **PRACTCIALS**

- 1. Service of Wines: Red wine / White/Rose wine / Sparkling wines / Fortified wines / Aromatized wines
- 2. Service of different types of Aperitifs and Spirits
- 3. Preparation and service of Cocktails and Mock tails (Minimum 5 Standard recipes)

#### Reference Books:

- Food & Beverage Service Training Manual-Sudhir Andrews
- Food & Beverage Service –Lillicrap & Cousins
- Modern Restaurant Service John Fuller
- Food & Beverage Service Management-Brian Varghese
- Introduction F& B Service-Brown, Heppner & Deegan
- Professional Food & Beverage Service Management –Brian Varghese
- The World Of Wines, Spirits & Beers-H.Berberoglu
- Beverage Book Andrew, Dunkin & Cousins
- Professional Guide to Alcoholic Beverages—Lipinski
- Alcoholic Beverages Lipinski & Lipinski
- Food Service Operations Peter Jones & Cassel
- Master Dictionary of Food & Wine-Joyce Rubash
- New york Bartenders Guide- BD &L
- Mr. Boston's Bartender & Party Guide Warner
- Menu planning –John Kivela
- The Restaurant (From Concept to Operation)-Lipinski
- Professional Food Service- Sergio Andrioli & Peter Douglas
- Bar & Beverage Book Costas Katsigris, Mary Porter, Thomas
- Profitable Menu Planning- John Drysale

Core course: BH 1345:Hotel EngineeringNo. of instructional hours per week:4 hours theoryNo. of credits:3

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1. Maintenance - Preventive & Breakdown Maintenance, Role and importance of Maintenance department in hotel Industry with emphasis on its relation with other departments of the hotel. Organization chart of maintenance department .Duties and responsibilities of maintenance Department

#### 2. Gas

- Heat terms and units, method of transfer
- LPG and its props/ties; principle of Bunsen burner
- Precautions to be taken while handling gas
- Low and high pressure burners, Corresponding heat output

#### 3. Electricity

- Fundamentals of electricity, insulators, conductors, current, potential difference resistance, power, energy concepts definitions, their units and relationships, AC and DC, single phase and 3 phase and its importance on equipment specifications,.
- Electric circuits, open circuits and closed circuits, symbols of circuit elements, series and parallel connection, short circuit, fuses, MCB, earthing, reason for placing switches on live wire side.
- Electric wires and types of wiring.
- Calculation of electric energy consumption of equipment, safety precautions to be observed while using electric appliances.
- Types of lighting, different lighting devices, incandescent lamps, florescent lamps, other gas discharge lamps! illumination, units of illumination.

#### 4. Fuels used in catering industry

- Types of fuels used in catering industry calorific value, comparative study of different fuels.
- Calculation of amount of fuel required and cost.

#### 5. Refrigeration and Air Conditioning

- Basic principles, latent heat, boiling point and its dependence on pressure, vapour Compression system of refrigeration and refrigerants.
- Vapour absorption system, care and maintenance of refrigerators; defrosting; types of refrigerant units, their care and maintenance.
- Conditions for comfort, relative humidity Humidification, dehumidifying, dew point control, unit of air conditioning.
- Window type air conditioner, central air conditioning. preventive maintenance.

#### 6. Fire Prevention and Fire Fighting Systems

- Classes of fire methods of extinguishing fires
- Fire extinguishers, portable and stationery
- Fire detectors and alarm
- Automatic fire detectors-cum-extinguishing devices
- Structural Protection

#### 7. Energy Conservation

• General tips for energy conservation and water conservation methods in hotel

Core course: BH 1346	:	Hotel Law I
No. of instructional hours per week	:	<b>3 hours theory</b>
No. of credits	:	2

#### LAW AND SOCIETY

Meaning and Definition of Law, Evolution of Law, Need to Know Law, Sources of Law, Classification of Law

#### **Hotel Restaurant Licenses**

License Permit, Procedure for obtaining, Renewing licenses, Suspension and termination of Licenses

List of Licenses required to open and operate hotels and Restaurants

#### **Indian Contract Act 1872**

Sale of Goods Act 1913 Consumer Protection Act 1986 Contract of Ailment and Pledge Factories Act 1948, Payment of wages Act 1936

Shops and Establish - Act as applicable to hotels and catering Establishments

Complementary course: BH 1331	:	Application of Computer & Cyber- Law
No. of instructional hours per week	:	4 hours theory and 2 hours practical
No. of credits	:	4

#### 1. MS WORD

- Running MS Word
- The Word Screen
- Getting Help
- Creating a New Document
- Changing Views
- Saving & Naming a File
- Spell Checking
- Printing Documents
- Opening Existing Files
- Navigating through Documents
- Deleting Unwanted Text
- Applying Attributes
- Page Setup
- Paragraph Alignment

#### 2. MS POWERPOINT

- Running PowerPoint
- The PowerPoint Screen
- Opening a Presentation
- Running a Slide Show
- Changing Views
- Selecting Objects

- Moving & Copying Items
- Resizing & Deleting Objects
- Customizing Slide Objects
- Working with Text
- Starting a New Presentation
- Saving & Printing
- Adding & Deleting Slides
- Inserting Shapes & ClipArt

#### 3. MS Excel

- Introduction MS Excel
- Creating a Spreadsheet
- Making the Worksheet Look Pretty Going Through Changes
- Printing the worksheet
- Additional Features of a worksheet
- Splitting worksheet window-into two four panes
- Freezing columns and rows on-screen for worksheet title
- Attaching comments to cells
- Finding and replacing data in the worksheet
- Protecting a worksheet
- Function commands
- Maintaining multiple worksheet
- Moving from sheet in a worksheet
- doing more sheets to a workbook
- Deleting sheets from tal workbook
- Naming sheet tabs other than sheet t, sheet 2 and so on
- Copying or moving sheets from one worksheet to another
- Creating Graphs / Charts
- Using Chart Wizard
- Changing the Chart with the Chart Toolbar
- Formatting the chart's areas
- Adding a text box to a chart
- Changing the orientation of a 3--0 chart
- Using drawing tools to add graphics to chart and worksheet
- Printing a chart with printing the rest of the worksheet data

#### 4.Cyber - Law

Cyber Law and security: - Introduction to cyber law. Public policy issues in e-commerce. Protecting Privacy, Intellectual property rights. Data encryption/decryption, cyber crimes, virus, Fire wall, Antivirus software.

#### PRACTCIALS

- MS WORD
- MS EXCEL
- MS POWERPOINT

### Suggested books:

- Fundamental of Computers, V.Rajaraman, Prentice Hall India 1
- Mastering Microsoft Office, Lonnie E. Moseley & David M. Boodey, BPB Publication 1

# **SEMESTER – 4 SYLLABUS**

# **SEMESTER –IV**

Core Course: BH 14 41 No. of instructional hours per week No. of credits	: : :	Hotel Accounting II 2 hours theory 2
<ol> <li>Uniform System of Accounts for hotels Introduction to Uniform System of accound Contents of the Income Statement Practical Problems Departmental Income Statements and Ex</li> <li>Internal control Definition and objectives of Internal Control Implementation and review of Internal C</li> <li>Internal Audit and Statutory Audit An introduction to internal and statutory</li> </ol>	unts pense Sta utrol ontrol Audit	atements
<ul> <li>Distinction Between internal and statutor Implementation and Review of Internal A</li> <li>Departmental Accounting An introduction to Departmental Account Allocation and apportionment of expense Advantages of allocation Drawbacks of allocation</li> </ul>	Auditing	
Basis of allocation Practial Problems Core Course: BH 1442 No. of instructional hours per week No.of credits	:	Food Production and Patisserie IV 4 hours theory and 2 hours practica 4
<ol> <li>LARDER THEORY</li> <li>LATOUT</li> <li>EQUIPMENTS TERMS CONTROL (yield tests)</li> <li>DUTIES AND RESPONSIBILITIES ( 5. CHARCUTIERE</li> <li>SAUSAGES (types, casing, filling, addi</li> <li>FORCEMEATS (types, preparation and MARINADES, CURES, BRINES (type</li> <li>BACON, HAM, GAMMON (cuts, diffe</li> <li>GALANTINES (types, preparation bal</li> <li>PATES AND TERRINES (types, prep- 12. MOUSSES AND MOUSSELINES (ty 13. CHAUD FROID (types, preparation, us 14. ASPIC AND GELEE (definition, diffestion)</li> </ol>	<b>DF LAR</b> atives, produces d uses) s, prepara rence, pri lottines) aration at pes, prep ses)	eservatives) ation, uses and differences) rocessing, uses) nd difference) aration and difference)

- **15. NON-EDIBLE DISPLAYS** (Ice Carvings, Tallow sculpture, Fruits & Vegetable Displays, Salt dough, Pastillage)
- **16. APPETIZERS AND GARNISHES**

Classification, examples, historic garnishes and factors to be kept in mind

17. SANDWICHES Parts have types filling garnish preparation and storage

Parts, base, types, filling, garnish, preparation and storage

**18. USE OF HERBS AND WINES IN COOKERY** 

Classification of herbs, usage, types of wines to be used

## **19. BAKERY AND CONFECTIONARY**

- 20. ICINGS AND TOPPINGS (varieties, uses, difference, preparation)
- 21. FROZEN DESSERTS (types, classification, ice-cream preparation, additives and preservatives used)
- 22. MERIGUES(preparation factors affecting, cooking, types and uses)
- **23.** CHOCOLATE (history, sources, manufacturing and processing, classification, tempering, application)

## **PRACTCIALS**

Indian and International Cuisines

I. II.	CHOWDER SOUP TIVOLI SALD	 II. III.	MEXICAN BEAN STEW CHICKEN FAJITHAS	Ι.	KHAI DAO (spicy thai salad made
	<u>AMERICAN</u> CUSINE <u>MENU-X</u>	I.	<u>MEXICAN CUISINE</u> <u>MENU-IX</u> CRÈME CAROTE SOUP		<u>THAI</u> CUISINE MENU-IV
I. II. IV. V. VI.	<u>MENU -04</u> POTATO BUTTER MASALA TANDOORI NAN VEGETABLE BIRYANI CHICKEN SAAGWALA BEEF CASHEW CUURY BALUSHAI	I. II. IV. V. VI.	<u>MENU-05</u> TOMATO SHORBA PHULKA KADAI VEGETABLE JEERAPULAO CHICKEN SHAHI KORMA LADOO	1. 11. 111. 1V. V.	<u>MENU-06</u> <u>ITALIAN</u> <u>CUSINE</u> <u>MINESTRONE SOUP</u> INSALATA DI VERDURE PASTA LASAGNA CHICKEN CACCIOATORE TORTA DI MELE
<u>MENU</u> I. II. III. V. V. VI.	J- 01 KERALAPARATHA VEGETABLE KORMA KERALAFRIED CHICKEN NEICHORU KANAVA THORAN PAYASAM( ANY)	I. II. IV. V. VI.	<u>MENU-02</u> CHAPPATHI BAGARABAINGAN HYDERABADI MUTTON BIRYANI HYDERABADIKHATTI DAL COLKONDA FISH CURRY SHAHITUKDA	I. II. IV. V. VI.	<u>MENU-03</u> ONION CUCUMBER CUCHUMBER ALOO PARATHA PANNER BUTTER MASALA KASMIRIPULAO MUTTON ROGAN JOSH PURANPOLI OR NEIPOLI

III.	BEEF WELINGTON	IV.	CALDOSO WITH		with fried egg)
IV.	PINEAPPLE FRIED		CHAMPAIGNON	II.	CHIANG MAI
	RICE	v.	FLAN MEXICANA		NOODLE SOUP
v.	CINNAMON			III.	<b>GREEN THAI BEEF</b>
	PUMPKIN MUFFINS				<b>CURRY WITH THAI</b>
					AUBERGINES
				IV.	THAI FRIED RICE
				٧.	COCONUT PAN
					САКЕ

#### **Books recommended:**

- The Larder Chef, M.J.Leto & W.H.K.Bode, Butterworth Heinemann
- Larousse Gastronomique-Cookery Encyclopedia Paul Hamlyn
- Professional Chef's-Art of Garde Manger (4th Edition) Frederic H.Semerschmid and John F.Nicolas
- Professional baking, Wayne Glasslen
- Classical food preparation & presentation, W.K.H.Bode
- Classical Recipes of the World, Smith, Henry
- Le Repertoire de la Cuisine, Louis Saulmier, Leon Jaggl & Sons
- Baking, Martha Day, Lorenz Books
- Professional Pastry Chef, Bo Friberg, John Wiley
- The New Catering Repertoire, Vol. I, H.L.Cracknell & G.Nobis, Macmillan
- The Creative Art of Garnishes, Yvette Stachowiak, Bedford Editions

Core Course: BH 1443	:	Food and Beverage Service IV
No. of instructional hours per week	:	4 hours theory and 2 hours practical
No.of credits		: 4

## 1. Planning and Operating Various F&B Outlets

(Specially Restaurants, Coffee shops, Fast Food Outlets, Flight, Catering, Industrial Catering)

Physical Layout of Functional And Ancillary Areas, Objectives Of A Good Layout, Steps in Planning, Factors To Be Considered While Planning, Calculating Space Required. Various Set-Ups For Seating, Planning Staff Requirement, Menu Planning, Constrains of Menu Planning, Selecting And Planning Of Heavy Duty & Light Equipment, Listing the Quantities of Equipment Required Like Crockery, Glassware, Steel Or Silver Etc, Suppliers & Manufactures, Approx. Cost

## 2. Managing F & B Outlet

Supervisory skills, Developing efficiency, Standards of Service

## 3. Managing F&B Banquets

History, Types, Organization of Banquet dept, Duties & Responsibilities, Sales, booking procedure, Banquet Menus, Banquet Protocal, Space Area Requirement, Table Plans/Arrangement, Mise-En-Place, Service Toasting, Informal Banquet, Reception, Cocktail

Parties Convention, Seminar Exhibition Fashion Shows, Trade fair, Wedding, Outdoor catering.

4. Buffets

Introduction, Factors to plan Buffets, Area Requirement, Planning and Organization, Sequence of Food, Menu Planning, Types of Buffet, Display, Sit down Fork, Finger, Cold Buffet, Breakfast Buffets, Equipments Supplies, Checklist.

## 5. Bar Operations

Types of Bar, Cocktail, Dispense, Area of Bar, Front Bar, Back Bar, Under Bar, Bar Equipment, Bar Stock, Bar Control, Staffing in Bar, Opening & Closing Duties

## 6. Kitchen Stewarding

Importance, Opportunities in K.S, records maintained, Machines used Inventory

#### 7. Volume Feeding

Planning of menus for various categories, such as;

School/College students, Industrial workers, Hospitals, Canteens, Outdoor parties themw dinners, Transport/mobile catering, Parameters for quantity food menu planning

#### 8. INSTITUTIONAL & INDUSTRIAL CATERING

Types of institutional & industrial catering Menu planning for institutional & industrial catering Scope of growth

## 9. HOSPITAL CATERING

Diet menus Importance of hygiene

**10. OFF PREMISES CATERING** Hiring of equipment Menu Planning Theme parties

## 11. QUANTITY PURCHASE & STORAGE

Introduction to purchasing Purchasing system Purchase specifications Purchasing techniques Storage

## **PRACTCIALS**

- 1. Banquet Set up
- 2. Banquet Reservations and Billing
- **3.** Buffet Set up for Break Fast, Brunch, Lunch, Dinner.
- 4. Opening and Closing Procedure in BAR
- **5.** BAR inventories

## **Reference Books:**

- Food & Beverage Service Training Manual-Sudhir Andrews
- Food & Beverage Service –Lillicrap & Cousins
- Modern Restaurant Service John Fuller
- Food & Beverage Service Management-Brian Varghese
- Introduction F& B Service-Brown, Heppner & Deegan
- Professional Food & Beverage Service Management –Brian Varghese
- The World Of Wines, Spirits & Beers-H.Berberoglu
- Beverage Book Andrew, Dunkin & Cousins

- Professional Guide to Alcoholic Beverages-Lipinski
- Alcoholic Beverages Lipinski & Lipinski
- Food Service Operations Peter Jones & Cassel
- Master Dictionary of Food & Wine-Joyce Rubash
- New york Bartenders Guide- BD &L
- Mr. Boston's Bartender & Party Guide Warner
- Menu planning –John Kivela
- The Restaurant (From Concept to Operation)-Lipinski
- Professional Food Service- Sergio Andrioli & Peter Douglas
- Bar & Beverage Book Costas Katsigris, Mary Porter, Thomas
- Profitable Menu Planning- John Drysale

Core Course: BH 1444	: Acco	mmodation operation and management
No. of instructional hours per week	:	4 hours theory and 2 hours practical
No.of credits	:	4

- 1. Planning and Organizing the H.K.D Area Inventory List **Frequency Schedules** Performance & Productivity standards Standard Operating Manuals - Job Procedures Job Allocation and Work Schedules Calculating Staff Strength & Planning Duty Rosters Training in the H.K.D- Performance Appraisals Selection of Cleaning Equipments and Agents Inventory levels for non Recycles Items 2. Budget and Budgetary Control **Budget Process** Planning Capital Budget Operating Systems- Methods of buying Purchasing Systems- Methods of buying Stock Records- Issuing and Control
- 3. Housekeeping in institutions Other Than Hotels Contract Services
- **4. Pest Control -** Definition of pest and control –areas of infestation prevention and control of pests –responsibility of Housekeeping in pest control.
- 5. Crime Preventions & Dealing with Emergency Situations
- 6. Interior Decoration Windows and window treatment, Lighting and Lighting Fixtures, Furniture and fittings, Accessories
- 7. Energy Conservation
- 8. Water Conservation
- 9. Waste management
- 10. Environment friendly housekeeping

## PRACTCIALS

- 1. Pest Control procedure
- 2. Cleaning procedures in organizations other than hotels

- 3. Stock taking
- **4.** Interior Decoration

#### **Reference Books:**

- Hotel Housekeeping Training Manual ,Sudhir Andrews
- Text book of Hotel House Keeping Management & Operations, Sudheer Andrews, The Mc Graw Hill Companies
- Hotel House Keeping, A Training Manual, Second edition, Sudheer Andrews, The Mcgraw Hill Companies
- Hotel House Keeping Operations and Management, Mr. G Raghubalan, Smritee Raghubalan,
- Oxford Higher Education

Core Course: BH 1446 :	Research Methodology	
No. of instructional hours per week	:	2 hours theory
No. of credits	:	2
<b>Research Methodology</b>		

# Module 1. Introduction to Research Methodology

Meaning, and purpose of doing research, Applications of research, Problems in conducting research.

## Module 2. Research Design

Research procedure – Research problem, statement of research probrems, Hypothesis, Sampling, Sampling methods

## Module 3. Collection of Primary data

Research Approach:- Observation, Experiment, Survey, Research Instrument:-Questionnaire, Interview Schedule, Mechanical Devices Research Techniques:- Scaling Techniques, Testing, Projective Technique, Inventory Techniques, Socio-Metric Techniques

## Module 4. Collection of Secondary data

Review of Literature- Purpose of related literature, Sources of information, How to conduct the review of literature- note taking, Bibliography, Foot notes.

## Module 7. Analysis and Interpretation of Data

Organization of Data - Editing, Coding, Tabulation, Statistical Analysis Interpretation, Formulation Of Conclusion And Generalization.

## Module 8. Research Report

Report format, Introduction, Literature Review, Methodology, Result And Discussion, Summary And Conclusion, Bibliography, Appendix.

## **QUANTITATIVE ANALYSIS**

Module 9. Introduction & Scope of Statistics Statistical Investigation.

## Module 10. Graphical Representation of Data

Tabulation - frequency distributing graphical representation, histograms, frequency polygon, frequency curve.

## **Module 11. Measures of Central Tendency**

Mean, median and mode.

#### Module 12. Measures of Dispersion

Range, quartile deviation, mean deviation, standard deviation

#### **Books For Reference**

- 1. 1. Marketing Management. Philip Kotler, Prentice Hall of India, New Delhi.
- 2. 2.Hospitality & Travel Marketing, Alastair M. Morrison, S'eimar Publishers Inc.
- 3. 3. Marketing Research, Harper W. Boyd, Richard D. Irwin, INC, All India Traveller
- 4. Book Seller, Delhi.
- 5. 4. How to Complete your Research Project Successfully, Judith Bell, UBS Publisher
- 6. Distributors, Delhi.
- 7. 5. How to Research and Write a Thesis in Hospitality & Tourism, James M, Paynter
- 8. John Wiley & Sons, NY, USPt.
- 9. 6.Travel, Tourism & Hospltallty Rceearch. Ritchie Ooeldner, John Wiley

Core Course : BH 1445		:	<b>Environmental Studies</b>
No. of instructional hours per week		:	<b>3</b> hours theory
No. of credits	:	2	

Objectives: To enable the students to acquire knowledge about environment and enable them to contribute towards maintaining and improving the quality of the environment

## Module I

Environmental studies - Meaning, definition, scope and importance- Natural resources-Renewable and non renewable resources- Use, exploitation, changes, benefits and comflicts of forest, water, Mineral, Food, Energy and Land resources- Role of an individual in conservation of natural resources- Equitable use of resources for sustainable life styles.

## Module II

Ecosystem, Biodiversity and its conservation. Ecosystem: Concept- structure and functions-Producers, consumers and decomposers-Energy flow-Ecological sucession-Foodchains, Food webs and ecological pyramids-Forest ecosystem-Grassland ecosystem-Desert ecosystemaquatic ecosystems.

Biodiversity and its conservation- Introduction-Definition, generic, species, and ecosystem diversity- Value of biodiversity, consumptive use, and productive use, social ethical aesthetic

and option values- At different levels-at global,National and local-Threats-Conservation of biodiversity. In-situ and Ex-sit conservation of biodiversity.

## Module III

Environmental Pollution - Definition- Causes, effects, prevention and control measures of Air, Water, Soil, Marine, Noise, Thermal and Nuclear hazards- Solid waste management-Disaster Management, Floods Earthquack, cyclone and landslides -Role of an individual in prevention of pollution- pollution case studies

## Module IV

Social Issues and the Environment: From Unsustainable to Sustainable development- Urban problems related to energy-Water conservation, rain water harvesting, watershed management-Resettlement and rehabilitation of people; its problems and concerns. Case Studies

Environmental Ethics: Issues and possible solutions-Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust. Case Studies-Wasteland reclamation consumerism and waste products- Environment Protection Act- Air (Prevention and Control of Pollution) Act-Water (Prevention and control of Pollution) Act-Wildlife Protection Act-Forest Conservation Act-Issues involved in enforcement of Environmental legislation-Public awareness

## Module V

Humen Population and the Environment - Population growth - variation among nations -Population Explosion - Environment and Humen Health - Humen rights - Value Education -Women and child welfare - Role of Information Technology in Environment and Human health.

## **Books Recommended**

Introduction to Environmental Economics - Nick Hanley etal - Oxford

Ecology and Economics - Ramprasad Sengupta - Oxford

- 3. Environmental Economics an Indian perspective Rabindra N Bhattaria - Oxford
- 4. Bharucha Erach, The Biodiversity of India, Mapin Publishing Pvt. Ltd., Ahmadabad.
- 5. Brunner R C, 1989, Hazardous Waste Incineration. McGraw Hill Inc.
- 6. Jadhav H & Bhosale, V M 1995. Environmental Piotection and Laws. Himalaya Pub. House, Delhi.
- 7. Mhaskar A K, Matter Hazardous, Techno-Science Publication (TB)

- 8. Miller T G, Jr. Environmental Science Wadsworth Publishing Co. (TB).
- 9 Survey of the Environment, The Hindu (M).

Complementary course: BH 1431	: Principles of Management
No. of instructional hours per week	: 3 hours theory
No. of credits	:2

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#### 1. INDRODUCTION

- a. Orientation to management thought process
- b. Evolution Development School of Management defined

#### 2. ROLE OF MANAGER

- a. Professional Manager and his tasks, Managerial skills Roles Levels-
- b. Managerial Ethics and Organization Culture management Process

#### 3. PLANNING

- a. Planning and Management Process Mission Objectives goals
- b. Planning Process in Detail Types and levels of plans
- c. Problems Solving and Decision Making Time Management

#### 4. ORGANIZING

- a. Organizing and Organization Structure Organization Chart Principles of
- b. Organization Scalar principle Departmentation Unity and Command
- c. Span of Control Centralization and Decentralization Unity and Command
- d. Responsibility Delegation

## 5. LEADING AND MOTIVATION

 a. Creating a committed workforce - Basic Concepts and Definition - Theories of Motivation - Hierarchy of Needs - Theory X and Y - McGregor -Hygeine Theory(Hertzberg)

## 6. LEADERSHIP

a. Definition, Theories, Style - Managerial Grid - Situational lead

## 7. CONTROLLING

a. Basic Concepts - Definition - Process and Techniques

#### 8. COMMUNICATIONS

a. Definition, Communication Process, Message Components, Communication and Empathy, Aids and Barriers to Communication, Verbal and Non verbal Communicates


Complimentary Courses :BH 1432	Principles of Food Microbiology	
No. of instructional hours per week	<b>3</b> hours theory	
No. of Credits	2	

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#### 1. Microbes

Classification according to kingdom

## 2. Bacteria – Morphology

Endospore and Motility, growth and multiplication Factors affecting bacterial growth Benificial effects of bacteria (manufacture of cheese, curd, pickles, fermented foods, intestinal synthesis of vitamins)

Harmful effects of Bacteria (food spoilage, putrefaction and decay, toxins and infection, food poisoning, methods of control)

## 3. Yeast – Morphology

Economic importance (bread, wine, beer and fermented fruit juices)

## 4. Mould morphology

Growth factors and reproduction Beneficial effects of moulds (antibiotics, cheese ripening, enzymes) harmful effects of moulds (food spoilage and myci toxins)

## 5. Pasteurization

Pasteurisation of milk LTST and HTST method Sterilization of milk, water

## 6. Disinfectant

Definition

**Common Disinfectants** 

Use on work areas, kitchen equipments, dish washing, hand washing.

Use on work areas, kitchen and service equipments, sanitizing catering equipments

## 7. Preservation of food

Principles of food preservation

Different and effective methods of food preservation (canning, high and law temp, dehydration, smoking, irradiation etc)

## 8. Food adulteration

Definition and public health hazards

Prevailing food standards in India FPO, PFA, AGMARK, ISI

## 9. Safe food Handling and garbage disposal

Personal hygiene (uniform, medical checkup, good food handling habits and training) Control and eradication of pests and rodents

Collection storage and proper disposal of garbage from the premises

# **SEMESTER – 5 SYLLABUS**

# **SEMESTER V**

Open course: BH 1551	:	Hospitality Management (Open course)
No. of instructional hours per week	:	3 hours theory
No. of credits	:	2

#### 1. <u>Introduction to the Hospitality Industry</u>

- History and growth of Hotel industry
- Definition Hospitality and Hotels
- Classification of Hotels based on Size, Clientele, Location, Ownership. Alternative Accommodation. Types of Guest Rooms, Type of Room Rates
- 2. Hotel Organization -
  - Major Departments of a Hotel.
  - Organization Charts
  - Duties and Responsibilities
- 3. F & B Outlets
  - Various F & B Outlets
  - Introduction to Menu, Types of Menu
- 4. Settlement of Bill
  - Modes of Payment and various payment procedures
- 5. Star Classification
  - Agencies and organizations involved in star classification
  - General criteria for star classification

Core Course: BH 1545	:	Marketing and sales
No. of instructional hours per week	:	3 hours theory
No. of credits	:	3

#### 1. INTRODUCTION

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Hospitality industry – A profile Size – Uniqueness complimentary role of Hospitality industry with other industries – Major participants organized sector Key factor of success – Contribution to Indian Economy – Growth Potential

#### 2. MARKETING

Basic concepts – needs, wants. Demand Exchange – Transaction, value and satisfaction in Hospitality Industry – Marketing Process – Marketing Philosophies MARKETING INFORMATION SYSTEM: Concepts and Components – Internal Record System (Result Area) – Marketing Intelligence System – (Happening Area)- Marketing Research system : Scope in Hospitality Business – Process and Characteristics – Managerial use of MIS with special reference to Rooms, Restaurants, Banquets & Facilities.

#### 3. Marketing Environment

As basis for Needs and Trend Analysis and Marketing effectiveness SWOT analysis for Hospitality of Micro and Macro Environment

4. Consumer Behaviour

Guest satisfaction – Reality of Hospitality Business – Factorial Analysis of consumer behaviour – Decision Making Process –Strategic consideration of consumer behaviour in Hospitality Business Need and importance of in – House Marketing.

## 5. Market segmentation

Segmenting the customer – general consideration – socio – economic – Groups Women – Short Break Markers – Active Leisure – Eating Habits Corporate Sector.

## 6. Strategic Planning

Mission Statement of Hotel – Objectives – Tactics – Strategic Planning Process – Portfolio analysis – Defining the Business – Differentiation – Strategic Consideration – Value Addition – Product Service – Quality – Image – Capability Industrialization of Service – Strategic aspects Position the Product and Market

## 7. TQM Marketing Hotels

Integration of Marketing Function for Total Quality Management.

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Core Course : BH 1546	:	Avia	tion & Cruise Lines Management
No of Instructional hours per week		:	3 hours theory
No. of credits		:	3

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## 1. Common Aviation

Aviation history, Aviation organizations, Aviations terminology, Aviation geography, Time zones and time calculation, Aircraft familiarization and air craft familiarization, Travel documents, Customs and currencies, Phonetic codes.

## 2. Cabin Crew

Cabin crew profession, Crew member training, Passenger handling, Duties after landing, Flight evaluation, passenger with special needs, Food and beverage service on board.

## 3. Air ticketing and reservations

The reservation system, Effective methods of reservations, ticketing procedures

## 4. Cruise lines

Introduction to cruise line industry

History of the cruise line industry and evolution of the new trends, Identify key cruise brands and how they differ, Factors deciding a successful and memorable cruise experience.

## 5. Cruise terminology and hierarchy

Identify cruise industry terms and meanings, Organizational structure in a cruise line, Identify the various roles of ship officers, Understand and discuss the various departments on board and their co-operative work culture.

## 6. Living and working on board

Identify the difference between land and ship life, Outline the disciplinary procedure, important rules and regulations on board and why they are important.

## **7.** Hotel departments in a cruise line and how they function Front office, Housekeeping, food production and F& B service

## 8. Logistics, Itinerary management, fire safety on board, coast guard inspection

Core course BH 1541:No of instrumental hours per week:No of credits:

Food Production and Patisserie V 4 hours theory 4

#### INTERNATIONAL CUISINE

- British, French, Arabic, German, Spanish, Portuguese, Italian, Mexican, Oriental, Lebonese, Greek
- Geographic Location
- Historical Background
- Staple food with Regional influences
- Specialties
- Recipes
- Equipment

#### CHINESES

- Introduction to Chinese foods
- Historical Background
- ' Regional Cooking Styles
  - Methods of Cooking

## KITCHEN STEWARDING

Importance of kitchen stewarding

Organization of the kitchen stewarding Department

Equipment found in kitchen stewarding Department

- Hierarchy found in kitchen Stewarding Department
- Work flow in kitchen stewarding

Garbage Disposal

## STORES MANAGEMENT

Stores layout and planning Standard Purchasing Purchase specification Dealing with supplers Storage system Inventories Records and documentation Computerized material system

#### **RESEARCH AND PRODUCT DEVELOPMENT**

Testing New Equipment Recipes Developing New Recipes Food Trial

Core course: BH 1543	:	Facility Planning
No. of instructional hours per week	:	3 hours theory
No. of credits	:	3

#### 1. HOTEL DESIGN Design consideration Attractive appearance - Efficient Plan - Good location - suitable material good workmanship - sound financing - competent management 2. Thumb rules for allocation of space in a Hotel 3. Key Definitions in Building constructions Plinth area, Floor area, Floor area ratio, Carpet area, Circulation area 4. FACILITIES PLANNING The systematic layout – (SLP) Flow diagram of SLP 5. Star classification of hotel Criteria of Star classification of hotel 6. Kitchen Key steps for designing a kitchen Equipment requirement for commercial Specification of different equipments Layout of commercial kitchen:- square, rectangular, U shape, L shape, parallel, Straight line Environmental conditions 7. PROJECT MANAGEMENT Network analysis Basic rules & procedure for network analysis C. P. M P. E. R. T Comparison of CPM & PERT Complementary course: BH 1531 **Financial Management** : No. of instructional hours per week : **3** hours theory No. of credits 3 : \_\_\_\_\_ \_\_\_\_\_ ----------Financial Management meaning and scope Meaning of business finance Meaning of financial management Financial statements: analysis and interpretation Meaning and types of financial analysis Techniques of financial analysis Limitations of financial analysis Practical problems **Ratio Analysis**

Meaning of ratios Classification of ratios **Profitability** ratios Turn over ratios Financial ratios Practical problems Working capital management Concept of working capital Factors determining working capital Overtrading and under trading Financing of short term working capital Indigenous bankers Commercial papers Commercial bank Trade credit Management of cash Lock box system Decentralized collection **Inventory management** Introduction Meaning and nature of inventory Goals and objectives of inventory management Purpose and benefits of inventory management Tools and techniques - ABC analysis, VED analysis, EOQ **Books Recommended:-**Financial Management: Sasi K Gupta and Sharma R K Fundamentals of Financial Management: Vyuptakesh Sharma Financial Management: I M Panday \_\_\_\_\_ Core course: BH 1544 **Human Resource Management** : No. of instructional hours per week : **3** hours theory No. of credits : 3 \_\_\_\_\_ -----Human resource Development Introduction of Human Resource Development Evolution and importance of Human Resource Management Human Resource Development HRD Culture and Climate HRD and Organisational Development **Personal process** Intra – personal Processes Learning Perception Stress and coping

Intra – personal processes

Helping
Communication
Group process
Group formation and group processes
Organisational communication
Team development and functioning
Union and Unionists
Trade union development and function
Trade union structures and trade union recognition
White collar and management of trade unions
Management and employers association
Conflict resolution
Dynamics of conflict and collaboration
Nature and content of collective bargaining
Negotiation skills
Role of labour administration : conciliation, arbitration and adjustication
Workers participation in management
Evolution, structure and processes
Design and dynamics of participative forums
Strategies and planning for implementation participation
Quality of work life and quality circles
Quality of work life
Barriers to quality of work life
Strategies for improvement in quality of work life
Quality circle
Structure and goals of quality circle
Suggestions to make quality circle process effective

Course course : BH 1542		: Food and Beverage Management
No. of instructional hours per week	:	3 hours theory
No. of credits	:	3

Cost of Dynamics
Elements of cost
Classification of cost
Sales concepts
Various sales concepts
Inventory control
Importance
Objective
Method
Levels and technique
Perpetual inventory
Comparison of physical and perpetual inventory
Food and beverage control

Purchasing Receiving Storing Issuing Sales control production control Standard recipe Standard portion size Bar frauds Beverage control **Sales control** Procedure of cash control Machine system ECR NCR Present machines POS Reports Cash handling **Budgetary control** Define budget Define budgetary control Objectives Types of budget Budgetary control Variance Analysis Standard costing Cost variances Material variances Overhead variances Labor variance Fixed overhead variance Sales variance Profit variance **Breakeven analysis** Breakeven analysis PV Ratio Contribution Marginal cost Graphs Menu merchandising Menu control Menu structure Menu as a marketing tool

#### **SEMESTER – 6 SYLLABUS**

## VI<sup>TH</sup> SEMESTER - INDUSTRIAL EXPOSURE TRAINING SCHEME

Industrial Training is an in integral part of the curriculum. Student has to undergo industrial training minimum 22 weeks at a single stretch. They will be awarded altogether 500 marks for the industrial training which includes 100 marks for each training report and each conduct of viva voce

- 1) For award of 500 marks of IET would be on the basis of feed-back from the industry in a prescribed Performance Appraisal Form (PAF). It will be the students responsibility to get this feed-back/assessment form completed form all the four departments of the hotel for submission to the institute at the end of Industrial Training.
- 2) Responsibilities of institute, hotel, the student/trainee with aims & objectives have been prescribed for adherence.
- 3) Once the student has been selected / deputed for Industrial Training by the Institute, he/she shall not be permitted to undergo it elsewhere. In case students make direct arrangements with the hotel for Industrial Training, these will necessarily have to be approved by the institute. Students selected through campus interviews will not seek Industrial Training on their own.

#### INDUSTRIAL EXPOSURE TRAINING

Objective of industrial Exposure Training is to provide to students the feel of the actual working environment and to gain practical knowledge and skills, which in turn will motivate, develop and build their confidence. Industrial Training is also expected to provide the students the basis to identify their key operational area of interest.

## **RESPONSIBILITIES OF THE TRAINEE**

- 1. Should be punctual
- 2. Should maintain the training logbook up-to date
- 3. Should be attentive and careful while doing work
- 4. Should be keen to learn to learn and maintain high standards and quality of work
- 5. Should interact positively with the hotel staff.
- 6. Should be honest and loyal to the hotel and towards their training.
- 7. Should get their appraisals signed regularly from the HODs or training manager.
- 8. Gain maximum from the exposure given, to get maximum practical knowledge and skills.
- 9. Should attend the training review sessions / classes regularly
- 10. Should be prepared for the arduous working condition and should face them positively
- 11. Should adhere to the prescribed training schedule.
- 12. Should take the initiative to do the work as training is the only time where you can get maximum exposure.
- 13. Should on completion of industrial Training, hand over all the reports, appraisal, logbook and completion certificate to the institute.

## **RESPONSIBILITIES OF THE INSTITUTE**

- 1. Should give proper briefing to students prior to the industrial training
- 2. Should make the students aware of the industry environment and expectations.
- 3. Should notify the details of training schedule to all the students.
- 4. Should coordinate(emergencies) with the hotel especially with the training manager
- 5. Should visit the hotel wherever possible, to check on the trainees
- 6. Should sort out any problem between the trainees and the hotel
- 7. Should take proper feedback from the students after the training
- 8. Should brief the students about me appraisals, attendance, marks, logbook and training report.
- 9. Should ensure that change of IET hotel is not permitted once the student has been interviewed, selected and has accepted the offer.
- 10. Should ensure that change of IET Batch is not permitted.
- 11. Should ensure trainees procure training completion certificate from the hotel before joining institute.

## **RESPONSIBILITIES OF THE HOTEL**

First exposure: A young trainee's first industry exposure is likely to be the most influential in that person's career. If the managers / supervisors are unable or unwilling to develop the skills young trainees need to perform effectively, the latter will set lower standards than they are capable of achieving, their self-images will be impaired, and they will develop negative attitudes towards training, industry, and in all probability - their own careers in the industry. Since the chances of building successful careers in the industry VJIII decline the trainees will leave in

hope of finding other opportunities. If on' the other hand, First managers/supervisors help trainees achieve maximum potential, they will build the foundations for a successful career.

## Hotels:

- 1. Should give proper briefing session! Orientation / induction prior to commencement of training.
- 2. Should make a standardized training module for all trainees.
- 3. Should strictly follow the structured training schedule.
- 4. Should ensure cordial working conditions for the trainee.
- 5. Should coordinate with the institute regarding training programme
- 6. Should be strict with the trainees regarding attendance during training
- 7. Should check with trainees regarding appraisals, training report, log boom, etc.
- 8. Should inform the institute about truant trainees
- 9. Should allow the students to interact with the guest
- 10. Should specify industrial training "Dos and Don'ts" for the trainee
- 11. Should ensure issues of completion certificate to trainees on the last day of training

## **Hospitality Research Project**

The student will have to undertake a research project on any topics from Hotel Management & Catering Science and related branches in the curriculum. The research project is intended to serve the student develop ability to apply multidisciplinary concepts, tools and techniques to deal with any subject related to hospitality industry.

#### **Type of Research Project**

The project may be one of the following type:

- a. Comprehensive case study
- b. Inter-Organizational study
- c. Field study/ Survey (Empirical study)

## **Research Project** Supervision

Each project shall be guided by a supervisor duly appointed by the department/coordinator. Research Guides will be a faculty from the college. Guides' certificate and Declaration by the student should form the first two pages of the dissertation.

#### **Research Project** *Proposal* (Synopsis)

Synopsis of the project should be prepared in consultation with the guide and submitted in the department. The synopsis should clearly state the objectives and research methodology of the proposed project to be undertaken. It should have full detail of the rationale, description of universe sampling, research instruments to be used, limitations if any and future directions for further research etc.

#### **Contents of the Research Project**

Cover page, Certificate, Decleration, Acknowledgement, List Of Contents, List Of Tables, List Of Figures, List Of Appendices-

Chapter I - Introduction	3-5 pages
• Chapter II - Review of literature- (minimum of	
(50 references and 10 related references of similar studies)	40-50 pages
• Chapter III- Methodology (clear and feasible)	5-8 pages
Chapter IV- Result and Discussion-	60-70 pages
Chapter V- Summary and conclusion	5-8 pages
bliography Appendices- Appexure and Exhibits	

Bibliography, Appendices- Annexure and Exhibits

#### **Research Project** Report Writing

The length of the report may be 100 double spaced pages (excused appendices, bibliography and annexure) 10% variation on either side is permitted

1. Same similar font to be used through out the thesis

- ✓ Main Headings- times new roman-font -16 bold capital letters, centralised
- ✓ Subheadings- times new roman font-14 italics bold- title case, left aligned

- ✓ Minor headings- times new roman font 12 italics bold-title case, left aligned
- ✓ Body of the thesis- times new roman font 12 double space, justified
- 2. Numbers to be given to every heading of each chapter as shown-(for Chapter- 4; subheadings- 4.1 and minor heading- 4.1.1 etc)
- 3. Numbers for each table should be in an order as shown-(4.1; 4.2; 4.3...., figure 4.1; 4.2; 4.3..... Photographs also in the same way)

4. Page numbers must be correct and continuous starting from the introductory chapter-I till Chapter V. Roman way of numbering may be used for preface and appendix afresh if necessary

5. Format of writing bibliography must same to all as shown below-

Karkos, P. D, S. C. Leong, C. D. Karkos, N. Sivaji and D. A. Assimakopoulos.,(2008) *Recent Trends In Hospitality Industry*; Published by Oxford University Press. eCAM Advance Access published online on September 14, 2008

Anitha L and K. Chandralekha; (2010) Use Of Indegeneous Equipments In Hotel Industy, And The Concept Of Eco-friendly Hotels., Asian J.Hosp.Indus., Vol 1 (1) 2010:36-46

6. Avoid typographical errors-Spelling mistakes and grammatical mistakes.

## Submission of the Report

Three copies of the Report have to be submitted before the due date as specified by the college. The original copies should be submitted to the university through the college concerned. The College copy is to be retained by the college and personal copy should be duly signed by the faculty guide and principal or HOD/research coordinator. The student should carry the personal copy to the Viva Voce.

The Student should also carry the following for the viva voce:

- Duly signed personal copy of the project
- Examination Hall Ticket
- College Identity Card
- Dress Code should be formal.

## Industrial Training PERFORMANCE APPRAISAL FORM (PAF)

Name of Student:	Roll No:	
Institute:	Duration: 5 weel	ks (30 working days)
Name of the Hotel:	From:	То:
Department: F&BS / FP / HK / FO		

## Appearance

Immaculate appearance, spotless uniform, well groomed hair, cleaned nails & hands	5
Smart appearance, crisp uniform, acceptable hair, cleaned nails & hands	4
Well presented clean uniform, acceptable hair, cleaned nail & hands	3
Untidy hair, creased ill kept uniform, hands not cleaned at times	2
Dirty / dishevelled, long / unkempt hair, dirty hands & longs nails	1

## Punctuality / attendances (\_\_\_\_\_\_ days present out of 30 days)

On time, well prepared, ready to commence task, attendance excellent	5
On time, lacks some preparation, but copes well, attendance very good	4
On time, some disorganised aspects - just copes, attendance regular	3
Occasionally late, disorganised approach, attendance irregular	2
Frequently late, not prepared, frequently absent without excuse	1

## Ability to communicate (written / Oral)

Very confident, demonstrate outstanding confidence and ability both spoken / written	5
Confident, delivers information	4
Communicates adequately, but lacks depth and confidence	3
Hesitant, lack confidence, in spoken / written communication	2
Very inanimate unable to express in spoken or written work	1

## Attitude to Colleagues / Customers

Wins / Retains highest regard from colleagues has an outstanding rapport with clients	5
Polite, Considerate & firm, well liked	4
Gets on well with most colleagues, handles customers well	3
Slow to mix, weak manners, is distant has insensitive approach to customers	2
Does not mix, relate well with colleagues & customers	1

## Attitude to Supervision

Welcomes criticism, acts on it, very co-operative	5
Readily accepts criticism and is noticeably willing to assists others	4
Accepts criticism, but does not necessarily act on it	3
Takes criticism very personally, broods on it	2
Persistently disregards criticism and goes own way	1

## Initiative / Motivation

Very effective in analysing situation & resourceful in solving problems	Demonstrates ambition to achieve progressively	5
Shows ready appreciation and willingness to tackle problems	Positively seeks to improve knowledge and performance	4
Usually grasps points correctly	Shows interest in all work undertaken	3
Slow on the uptake	Is interested only in areas of work preferred	2
Rarely grasps points correctly	Lacks drive and commitment	1

# **Reliability / Comprehension**

Is totally trust worthy in any working situation, understands in detail, why and how the job is done	5
Can be depended upon to identify work requirements and willing to complete them. Readily appreciates, how and why the job is done	4
Gets on with the job in hand. Comprehends, but doesn't fully understand work in hand	3
Cannot be relied upon to work without supervision, Comprehends only after constant explanation	2
Requires constant supervision. Lack any comprehension of the application	1

# Responsibility

Actively seeks responsibility to all times	5
Very willing to accept responsibility	4
Accepts responsibility as it comes	3
Inclined to refer matters upwards rather than make own decision	
Avoids taking responsibility	1

## **Quality of Work**

Exceptionally accurate in work, very thorough usually unaided	5
Maintain a high standard of quality	4
Generally good quality with some assistance	3
Performance is uneven	2
Inaccurate and slow at work	1

# Quantity of Work

Outstanding in output of work	5
Gets through a great deal	4
Output satisfactory	3
Does rather less than expected	2
Output regularly insufficient	1
Total /50	

Stipend Paid: Rs.\_\_\_\_\_ per month

Name of Appraiser:	Signature:
Designation of Appraiser:	Date:
Signature of Student:	Date: