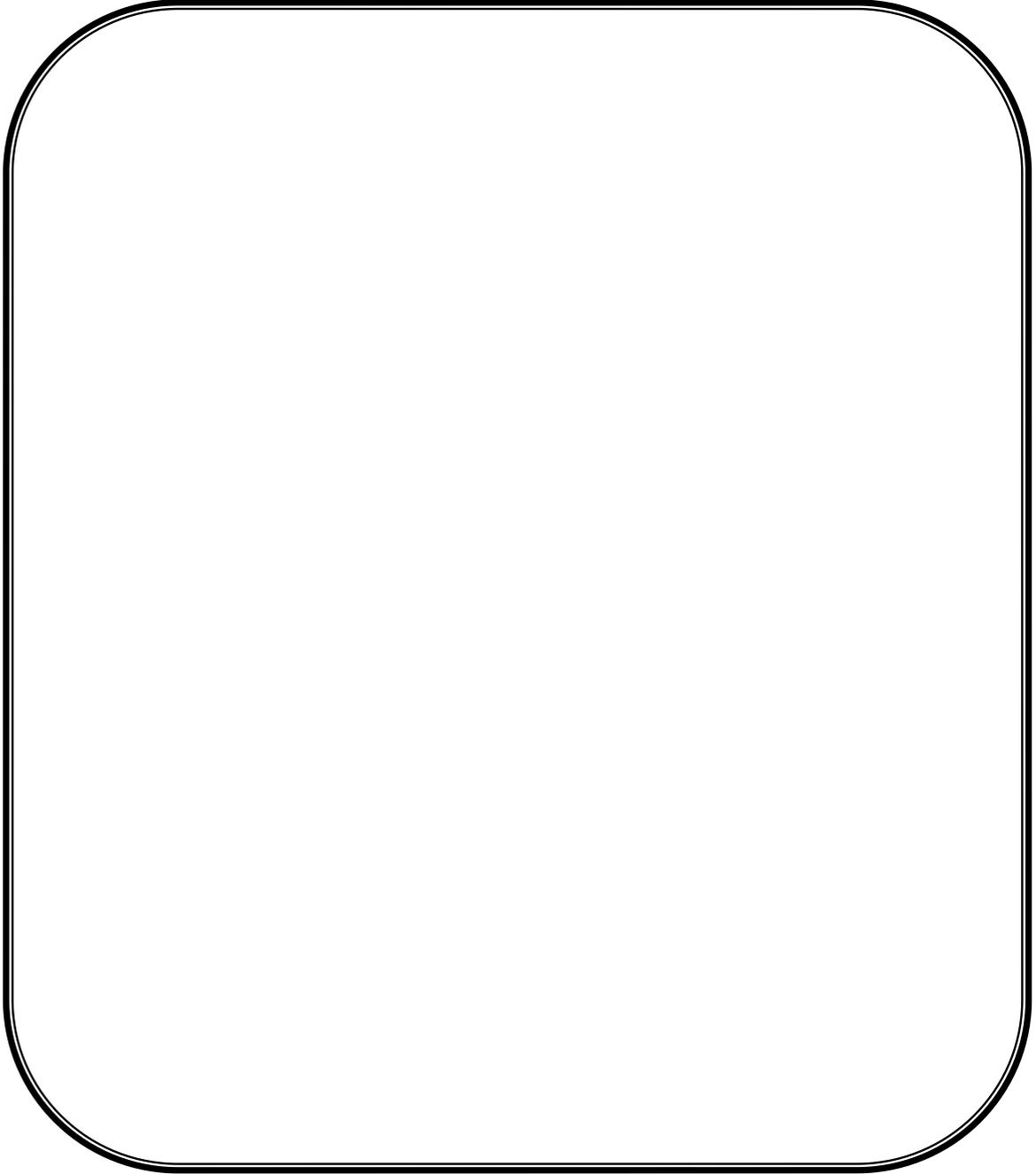


UNIVERSITY OF MUMBAI

Academic Council _____

Item No. _____



UNIVERSITY OF MUMBAI

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Item No. _____

UNIVERSITY OF MUMBAI

Syllabus for Approval

Sr. No.	Heading	Particulars
1	Title of the Program	B.Sc. MARITIME HOSPITALITY STUDIES (B Sc. MHS)
2	Eligibility for Admission	<p>Candidate for being eligible for admission to the degree course of Bachelor of Science – Maritime Hospitality Studies, shall have passed XII standard examination (any stream) of the Maharashtra Board of Higher Secondary Education; any recognized education board or its equivalent board for open and reserved category candidates.</p> <p>Students will be admitted in the order of merit.</p> <p>Every candidate admitted to the Bachelor of Science – Maritime Hospitality Studies in the affiliated College conducting the course shall have to register himself / herself with the University of Mumbai.</p>
3	Passing Marks	12 th standard passed.
4	Ordinances / Regulations (if any)	Time to time issued by university.
5	No. of Years / Semesters	3 Years / 6 Semesters.
6	Level	U.G.
7	Pattern	Semester
8	Status	Revised
9	To be implemented from Academic Year	From Academic Year 2017-18 (w.e.f. Academic Year 2017-18 onwards.)

Date:

Signature:

Name BOS Chairperson / Dean: _____

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Cover Page

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Syllabus for Approval

- 1. Title of the Program:-** Syllabus Three Years B.Sc. Course In Maritime Hospitality Studies. / B Sc. (MHS)
- 2. Program Code:** – B.Sc.MHS
- 3. Preamble / Scope:-**

P R E A M B L E

Degree programme in Maritime Hospitality Studies was introduced by the University of Mumbai in the year 2009. The first batch passed out in the year 2012 and since then, with every batch passing out and being absorbed in industry, there were some feedbacks on the conduct of the programme and the improvements to be brought about in the curriculum.

World-over the shipping industry is being regulated by International Maritime Organization (IMO) and subsequently the governments of flag states draw out the rules, regulations and the guidelines for their shipping principles, maritime training providers and all other stakeholders involved in the process.

Over the past few years, with stringent rules pertaining to safety, environment protection, working conditions and health of personnel working onboard, created the need of personnel with higher qualifications to work onboard ships. Many Shipping Companies desirous of employing students with a higher level of qualification turned to regular Catering & Hotel Management Colleges, however as the maritime legislation did not allow such direct recruitment, it was mandatory for the students to undergo Standards of Training Certification and Watch keeping (STCW) and an Orientation Course as per D. G. guidelines before they could get employment on merchant vessels. Thus getting students from this sector was difficult as it involved expenditure of additional time and finance. Besides, the company feedback on regular Hotel Management students who found employment on merchant vessels was not encouraging as they did not have right attitude and were unprepared for the challenges of a sea career. For this very reason, this programme was instantly accepted by the industry wherein not only technical skills but

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an attitude to work in high sea was developed in students of Maritime Hospitality studies.

In this improved curriculum, students are made to undergo STCW 2010 courses (as amended), basically five basic safety courses and other safety modules like Oil Tanker familiarization, gas Tanker familiarization, chemical Tanker familiarization, spellbound oil pollution and environmental protection etc are added, as per industry specific demand. These safety courses (STCW 2010) are one of the basic requirements for the students to make them eligible to get Continuous Discharge Certificate (CDC) from Director General of Shipping (D. G. Shipping) provided a candidate fulfill other criteria such as age, physical fitness and eye sight which is mandatory document to sail on a merchant vessel.

Syllabus Committee Members

- | | | |
|----|-------------------------------|--------------------------|
| 1) | Mr. Paul Koshy | Convener |
| 2) | Mr. Pankaj Deshmukh | Co - convener |
| 3) | Mr. Anupam Dhoundiyal | Member (Teacher) |
| 4) | Mr. Cletus Paul | Member (Teacher) |
| 5) | Mr. Sunil Salunkhe | Member (Teacher) |
| 6) | Mrs. Archana Yendarkar | Member (Teacher) |
| 7) | Mr. Chetan Raut | Member (Teacher) |
| 8) | Capt. (Dr.) Ashutosh Apandkar | Member (Industry Expert) |
| 9) | Mr. Mahesh Swaminathan | Member (Industry Expert) |

4. Objective of program / program Outcome:-

- To familiarize and give an adequate exposure to the students with basic concepts of maritime hospitality business/services.
- To create young professionals with sound knowledge, practical skills and attitude for the maritime hospitality industry.
- To make students aware of current trends in business.

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5. Eligibility:-

Candidate for being eligible for admission to the degree course of Bachelor of Science – Maritime Hospitality Studies, shall have passed XII standard examination (any stream) of the Maharashtra Board of Higher Secondary Education, any recognized education board or its equivalent board for open and reserved category candidates.

Students will be admitted in the order of merit.

Every candidate admitted to the Bachelor of Science – Maritime Hospitality Studies in the affiliated College conducting the course shall have to register himself / herself with the University of Mumbai.

6. Fee Structure (per semester):-

Fees for B. Sc MHS shall be Rs. 52,940/- (Rupees Fifty Two Thousand Nine Hundred Forty Only) per semester	
Particular of fees	Amount
Tuition Fees	62,562
Library Fees	1,000
Gymkhana Fees	600
Other Fees/Extra Curricular Activity	250
Exam Fees	1,000
Disaster Relief Fees	10
Utility Fees	-
Magazine Fees	-
ID Card	25
Group Insurance Fees	50
Student Welfare Fund	30
Development Fees	10,000
Vice Chancellors Fund	20
Uni. Sports & Cultural Activity	90
E-Suvidha	50
E-Charges	10
(A)	75,697
Laboratory Fees	24,033
Any Other Fees	5,000
(B)	29,033
Refundable	
Caution Money	1,150
Library Deposit	-
Laboratory Deposit	-
(C)	1,150
Fees (A+B+C)	1,05,880
Wherever Applicable	
Transcript - Copies (Additional Copy)	700
Enrollment Fees - only at the time of Entry	200 or 500
Admin Form - Pros + Inform Brochure	1000
Transfer Certificate	100
Bonafide Certificate	25

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No Objection Certificate	25
Industrial Visit Fees	As per actual.
Alumni Association Fees	-
Document Verification Fees	500
Project Fees	1000
Any Other Fees	5000
Credit Transfer Processing Fees	As per guidelines
Note:- Journals, Books, Uniform, Tool kits and/or any other student belongings should be as per actual. Fees components of University of Mumbai and other authorities may change as per instructions issues by then at time to time.	

7. No. of Lectures: –per week

SEM I	SEM II	SEM III	SEM IV	SEM V	SEM VI
18	17	15	13	0	20

8. No. of Practical:- per week

SEM I	SEM II	SEM III	SEM IV	SEM V	SEM VI
16	16	19	22	22	15

9. Duration of the Program :- 3 years (6 semester)

The program shall be a 3 year full time program comprising of 6 semesters.

10. No. of students per batch: – 60 Students per batch.

Colleges are permitted to take 10% extra seats to compensate for drop outs / cancellation of admission.

11. Selection:-

Students will be admitted in the order of merit.

Every candidate admitted to the Bachelor of Science – Maritime Hospitality Studies in the affiliated college conducting the course shall have to register himself / herself with the University of Mumbai.

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12. Syllabus Details:- B.Sc. in Maritime Hospitality Studies

SEMESTER –I

Course Code	Title of the Course	Per Week		Per Semester		Marks		Credits		Total
		L	P	L	P	TH	PR	L	P	
Core Course										
USMHO101	Maritime Studies-I (Theory)	3	--	45	--	100	--	2	-	2
USMHO102	Food Production-I (Theory)	3	--	45	--	100	--	2	-	2
USMHO103	Food Production-I (Practical)	--	8	--	120	--	100	-	2	2
USMHO104	Food & Beverage Service-I (Theory)	3	--	45	--	100	--	2	-	2
USMHO105	Food & Beverage Service-I (Practical)	--	4	--	60	--	100	-	2	2
USMHO106	Accommodation & Facility Management-I (Theory)	3	--	45	--	100	--	2	-	2
USMHO107	Accommodation & Facility Management-I (Practical)	--	4	--	60	--	100	-	2	2
AECC – Ability Enhancement Compulsory Course										
USMHO108	Soft Skills & Corporate Communication	2	--	30	--	100	--	2	-	2
SEC - Skill Enhancement Course										
USMHO109	Cost & Financial Management-I	2	--	30	--	100	--	2	-	2
DSE – Elective: Discipline Specific										
USMHO110	Food Science -I	2	--	30	--	100	--	2	-	2
TOTAL		18	16	270	240	700	300	14	6	20

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SEMESTER –II

Course Code	Title of the Course	Per Week		Per Semester		Marks		Credits		Total
		L	P	L	P	TH	PR	L	P	
Core Course										
USMHO201	Maritime Studies-II (Theory)	2	--	30	--	100	--	2	--	2
USMHO202	Maritime Studies-II (Practical)	--	4	--	60	--	100	-	2	2
USMHO203	Food Production-II (Theory)	3	--	45	--	100	--	2	-	2
USMHO204	Food Production-II (Practical)	--	8		120	--	100	-	2	2
USMHO205	Food & Beverage Service-II (Theory)	3	--	45	--	100	--	2	-	2
USMHO206	Food & Beverage Service-II (Practical)	--	2	--	30	--	100	-	2	2
USMHO207	Accommodation & Facility Management-II (Theory)	3	--	45	--	100	--	2	-	2
USMHO208	Accommodation & Facility Management-II (Practical)	--	2	--	30	--	100	-	2	2
AECC – Ability Enhancement Compulsory course										
USMHO209	Environmental Science	3	--	45	--	100	--	2	-	2
SEC - Skill Enhancement course										
USMHO210	Cost & Financial Management-II	3	--	45	--	100	--	2	-	2
TOTAL		17	16	255	240	600	400	12	8	20

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SEMESTER –III

Course Code	Title of the Course	Per Week		Per Semester		Marks		Credits		Total
		L	P	L	P	TH	PR	L	P	
Core Course										
USMHO301	Maritime Studies-III (Theory)	2	--	30	--	100	--	2	--	2
USMHO302	Maritime Studies-III (Shipboard computer applications)-(Practical)	--	3	--	45	--	100	--	2	2
USMHO303	Food Production-and Patisserie I (Theory)	2	--	30	--	100	--	2	--	2
USMHO304	Food Production-and Patisserie I (Practical)	--	12	--	180	--	100	--	2	2
USMHO305	Food & Beverage Service-III (Theory)	2	--	30	--	100	--	2	--	2
USMHO306	Food & Beverage Service-III (Practical)	--	4	--	60	--	100	--	2	2
USMHO307	Accommodation & Facility Management-III (Theory)	3	--	45	--	100	--	2	--	2
SEC - Skill Enhancement Course										
USMHO308	Cost & Financial Management-III	2	--	30	--	100	--	2	--	2
USMHO309	Principles of Management	2	--	30	--	100	--	2	--	2
DSE – Elective: Discipline Specific										
USMHO310	Food Science -II	2	--	30	--	100	--	2	--	2
TOTAL		15	19	225	285	700	300	14	6	20

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SEMESTER –IV

Course Code	Title of the Course	Per Week		Per Semester		Marks		Credits		Total
		L	P	L	P	TH	PR	L	P	
Core Course										
USMHO401	Maritime Studies-IV (Theory)	2	--	30	--	100	--	2	-	2
USMHO402	Maritime Studies-IV (Practical)	--	2	--	30	--	100	-	2	2
USMHO403	Food Production-and Patisserie II (Theory)	2	--	30	--	100	--	2	-	2
USMHO404	Food Production-and Patisserie II (Practical)	--	12	--	180	--	100	-	2	2
USMHO405	Food & Beverage Service-IV (Theory)	2	--	30	--	100	--	2	-	2
USMHO406	Food & Beverage Service-IV (Practical)	--	4	--	60	--	100	-	2	2
USMHO407	Accommodation & Facility Management –IV (Theory)	3	--	45	--	100	--	2	-	2
USMHO408	Accommodation & Facility Management –IV (Practical)	--	4	--	60	--	100	-	2	2
SEC - Skill Enhancement course										
USMHO409	Cost & Financial Management-IV	2	--	30	--	100	--	2	-	2
DSE – Elective: Discipline Specific										
USMHO410	Entrepreneurship Skills	2	--	30	--	100	--	2	-	2
TOTAL		13	22	195	330	600	400	12	8	20

SEMESTER –V

Course Code	Title of the Course	Duration		Marks		Credits	Total
DSE – Elective: Discipline Specific							
USMHO501	Industrial Training	L	P	TH	PR	20	20
		---	22 weeks	--	1000		

Note:- The Principal of the college can give leeway of two weeks to students to undergo Orientation Course for Catering Personnel (OCCP) course, training abroad or as the case may be.

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SEMESTER –VI

Course Code	Title of the Course	Per Week		Per Semester		Marks		Credits		Total
		L	P	L	P	TH	PR	L	P	
Core Course										
USMHO601	Maritime Studies-VI	3	--	45	--	100	--	2	--	2
USMHO602	Advance Food Production	3	--	45	--	100	--	2	--	2
USMHO603	Quantity Food Production (Indian regional cuisine)	--	8	--	120	--	100	--	2	2
USMHO604	Food & Beverage Service-VI	3	--	45	--	100	--	2	--	2
USMHO605	Accommodation & Facility Management-VI	3	--	45	--	100	--	2	--	2
SEC - Skill Enhancement course										
USMHO606	Cost & Financial Management-VI	3	--	45	--	100	--	2	--	2
USMHO607	Marketing Management	3	--	45	--	100	--	2	--	2
USMHO608	Project	--	7	--	45	--	100	--	4	4
DSE – Elective: Discipline Specific										
USMHO609	Strategic Management	2	--	30	--	100	--	2	--	2
OR										
USMHO610	Human Resource Management	2	--	30	--	100	--	2	--	2
TOTAL		20	15	300	165	700	200	14	6	20

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13. Semester wise Theory:- B.Sc. in Maritime Hospitality Studies

THEORY

SEMESTER –I

Maritime Studies-I (Theory)

Objectives of course:-

To familiarize students with ship and shipping industry, safety procedures on board and inter personal skills required to sail on ships.

Specific learning outcome:-

After completion of this module, the student shall be able to:

- List common documents required for sailing onboard a merchant vessel.
- State common terms on position, direction and movement of ship
- List merchant ship types and their functions
- State rough weather precautions
- List down the common provisions of Drugs and Alcohol policies and MARPOL 73/78.
- Develop Inter personal skills required of seamen.

Maritime Studies-I (Theory)		45 hours
Unit 1	General Administration and regulation of Shipping Industry	15 hours
1.1	IMO- Role, structure, objectives and main functions. Functions of :	
1.1.1	<ul style="list-style-type: none"> • D. G. Shipping. • MMD. • SEO. • Port State Control, Port Health. • Customs. • Immigration. • Dock Safety. • Flag state inspections. • ISM, SOLAS. 	
1.1.2	Ballast Water Management	
1.2	Familiarization	
1.2.1	Ship	
1.2.2	Shipboard organization	
1.2.3	Merchant ship types and their functions	
1.2.4	Life on board	
1.2.4	Parts of ship	
1.2.6	Terms defining position and direction of the ship	
1.2.7	Terms defining movement of the ship	
1.2.8	Draught, load line	
1.2.9	Jetty, berth, docks, slips, basins	
1.2.10	Dry docks	
1.2.11.	Sea measures	
1.2.12	Signing on/off, offences against discipline	
1.2.13	Official log book	
1.2.14	Articles of agreement	

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1.2.15	Personal documents	
Unit 2	Orientation and Safety Requirements for Seamen	15 hours
2.1	Basic safety sense pertaining to <ul style="list-style-type: none"> • Fire safety in galley • Personal safety • Stoways 	
2.2	Rough weather precautions	
2.3	Drugs and alcohol policies- introduction, objectives, features and actions recommended.	
2.4	Orientation to MLC 2006.(as per DG Training circular no. 16 of 2016 or as amended)	
2.5	MARPOL 73/78	
Unit 3	Qualities and Attributes Required of Seamen	15 hours
3.1	Working in an environment of cultural diversity	
3.2	Team management <ul style="list-style-type: none"> • Group formation • Group think & its pitfall • Group dynamics • Communication • Cooperation • Collaboration • Teams & how to make them effective 	
3.3	Time & stress management <ul style="list-style-type: none"> • Time management in group • Time matrix • Urgent vs important jobs • Stress management in groups • Stresses in work group • How to control emotions • Strategy to overcome stress • Understanding importance of good health to avoid stress 	
3.4	Marine English (Basic Knowledge)	
	Note: Apart from academics, students shall be exposed to parade drills and fire drills in campus and/or any other requirement for pre-sea trainees as notified by D.G Shipping in its training circulars from time to time.	

Food Production-I (Theory)

Objectives of course:-

Objectives of course is to explain the historical progression leading to modern cookery, and draw organization of classical and modern kitchen and galley organization on board ships, List attributes of culinary professional, state the importance of chef as a business executive and explain the importance of interaction between service and preparation.

Specific learning outcome:-

Students will be able to –

1. Explain the purpose and safety precautions while using each equipment.
2. List the methods of cooking and explain the advantages and disadvantages.

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3. Explain the importance of mise-en-place, various textures with examples of food items and the principles of using the recipes effectively
4. List the types and explain the Characteristics of the following ingredients.

Food Production I (Theory)		45 hours																																																																															
Unit 1	Introduction To Culinary Profession	15 hours																																																																															
1.1	Historical progression leading to modern cookery																																																																																
1.2	Organization of classical kitchen																																																																																
1.3	Responsibilities of kitchen personnel																																																																																
1.4	Attributes of a culinary professional																																																																																
1.5	Levels of skills																																																																																
1.6	Chef as a business executive																																																																																
1.7	Interaction between service and preparation																																																																																
1.8	Common kitchen hand tools and small utensils																																																																																
1.9	Processing equipment & heavy equipment																																																																																
1.10	Types and care of knives																																																																																
1.11	Culinary term																																																																																
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Abats</td> <td style="width: 20%;">Baste</td> <td style="width: 20%;">Dum</td> <td style="width: 20%;">Gravy</td> <td style="width: 20%;">Poisson</td> </tr> <tr> <td>A la</td> <td>Batter</td> <td>Demi</td> <td>Garammasala</td> <td>Puree</td> </tr> <tr> <td>A la – Carte</td> <td>Béchamel</td> <td>Darne</td> <td>Hors d’œuvres</td> <td>Pasta</td> </tr> <tr> <td>Appetiser</td> <td>Bind</td> <td>Egg Wash</td> <td>Juliennes</td> <td>Parboil</td> </tr> <tr> <td>Aspic</td> <td>Buerre</td> <td>Emulsion</td> <td>Kababs</td> <td>Panch</td> </tr> <tr> <td>Au four</td> <td>Biryani</td> <td>Entrée</td> <td>Liasion</td> <td>Poran</td> </tr> <tr> <td>Au gratin</td> <td>Canape</td> <td>Entremet</td> <td>Mirepoix</td> <td>Rogan</td> </tr> <tr> <td>Bain Marie</td> <td>Carte Du Jour</td> <td>Espagnole</td> <td>Mise-en-place</td> <td>Ragout</td> </tr> <tr> <td>Blanc</td> <td>Caramelize</td> <td>Fillets</td> <td>M.S.G</td> <td>Rechauffe</td> </tr> <tr> <td>Blanching</td> <td>Concasse</td> <td>Fricassee</td> <td>Mousse</td> <td>Reduce</td> </tr> <tr> <td>Blend</td> <td>Condiments</td> <td>Fritters</td> <td>Marinade</td> <td>Salamander</td> </tr> <tr> <td>Bouquet Garni</td> <td>Consomme</td> <td>Farinaceous</td> <td>Menu</td> <td>Supreme</td> </tr> <tr> <td>Broil</td> <td>Court Boullion</td> <td>Garnish</td> <td>Manne</td> <td>Shorba</td> </tr> <tr> <td>Baking</td> <td>Croquettes</td> <td>Gherkins</td> <td>Macedoine</td> <td>Yakhni</td> </tr> <tr> <td>Barbecue</td> <td>Croutons</td> <td>Giblets</td> <td>Maitre d’hotel</td> <td>Zest</td> </tr> <tr> <td>Banquette</td> <td>Cuisine</td> <td>Glaze</td> <td></td> <td>Zarda</td> </tr> </table>		Abats	Baste	Dum	Gravy	Poisson	A la	Batter	Demi	Garammasala	Puree	A la – Carte	Béchamel	Darne	Hors d’œuvres	Pasta	Appetiser	Bind	Egg Wash	Juliennes	Parboil	Aspic	Buerre	Emulsion	Kababs	Panch	Au four	Biryani	Entrée	Liasion	Poran	Au gratin	Canape	Entremet	Mirepoix	Rogan	Bain Marie	Carte Du Jour	Espagnole	Mise-en-place	Ragout	Blanc	Caramelize	Fillets	M.S.G	Rechauffe	Blanching	Concasse	Fricassee	Mousse	Reduce	Blend	Condiments	Fritters	Marinade	Salamander	Bouquet Garni	Consomme	Farinaceous	Menu	Supreme	Broil	Court Boullion	Garnish	Manne	Shorba	Baking	Croquettes	Gherkins	Macedoine	Yakhni	Barbecue	Croutons	Giblets	Maitre d’hotel	Zest	Banquette	Cuisine	Glaze	
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Banquette	Cuisine	Glaze		Zarda																																																																													
Unit 2	Elementary Knowledge Of Food Production	15 hours																																																																															
2.1	Principles of cooking- heat transfer, effect of heat																																																																																
2.1.2.	Cooking methods : dry, moist, medium of fats and its sub-classification																																																																																
2.2	Mise-en-place																																																																																
2.3	Properties of raw materials																																																																																
2.3.1	Flavors & flavorings <ol style="list-style-type: none"> a) Salt as primary seasoning b) Basic principles of the physiology of the sense of taste & smell c) Understanding variety Indian, western & oriental herbs d) Spices, oils, vinegar, wines & other flavorings e) Understanding how to use flavoring ingredients f) Enhancement of the natural flavor of a dish 																																																																																
2.3.2	Liquids																																																																																
2.3.3	Fats and oil																																																																																
2.3.4	Raising or leavening agents																																																																																
2.3.5	Thickening and binding agents																																																																																
2.3.6	Egg																																																																																

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2.3.7	Milk and milk products	
Unit 3	Menus & Recipes	15 hours
3.1	Menus- definition and types	
3.2	Standard recipes- structure and development	
3.3	Importance of measuring accurately	
3.4	Converting volumes measures to weight	
3.5	Conversion between us and metric measurement systems	
3.6	Convenience food & its use in galley operations	
3.7	Raw material management onboard ships -rob, victualling and indenting, ships chandeliers, monthly provision report	
3.8	Principles of indenting onboard	
3.9	Special concerns and care required while indenting onboard ships	
3.10	Precautions in galley and food stores during rough weather.	
3.11	Quantities and portions for bulk productions	

Food & Beverage Service-I (Theory)

Objectives of course:-

Objective of course is to familiarize students with Basic Food and Beverages Service procedures ashore and onboard.

Specific learning outcome:-

On completion of this module- the trainee shall be able to –

1. Define Hospitality Industry and explain difference between food & Beverages service a shore and on board.
2. Explain organization of F & B Department & their attributes.
3. Explain service procedure & different services on board.

Food & Beverage Service -I (Theory)		45 hours
Unit 1	Introduction To F & B Services Ashore & Onboard	15 hours
1.1	Origin of hospitality industry.	
1.2	Hospitality Industry in India.	
1.2.1	History of popular hotel chains in India	
1.2.2	Major characteristics of the Indian hospitality industry.	
1.2.3	Measures undertaken by government of India to promote hospitality industry.	
1.2.4	Growth drivers of hospitality industry.	
1.3	Sectors in F & B services.	
1.3.1	Quick Service Restaurants - Evolution of Popular QSR chains.	
1.4	F & B Service on Cruise Ships	
1.4.1	Difference in saloon service on merchant vessels, passenger ships and cruise liners- roles and responsibilities of stewards, cooks, other catering and hospitality personnel	
1.4.2	Basic difference in layout of shore based restaurant and dining hall of a cruise ship	

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Unit 2	Introduction To F & B Department	15 hours
2.1	Organization of F & B Department of a Hotel	
2.1.1	Duties and responsibilities of F&B staff	
2.1.2	Attributes of F & B staff	
2.1.3	Etiquettes of F & B staff	
2.2	Restaurant and its Equipments	
2.2.1	Furniture	
2.2.2	Difference in furniture designs in ships saloon	
2.2.3	Common glassware used in catering operations, their sizes and uses.	
2.2.4	Hollow ware , cutlery - types and uses,	
2.2.5	Special cleaning of silver ware - burnishing, polivit , plate powder, silver dip	
2.2.6	Crockery - qualities of chinaware, sizes and uses of common crockery items in F&B service	
2.2.7	Side board (dummy waiter)	
2.2.8	Automatic vending machines- types, advantages and disadvantages	
2.2.9	Common buffet equipments and its uses	
2.3	Auxiliary Areas of F&B Departments and Their Importance	
2.3.1	Pantry/ Still Room and activities	
2.3.2	Stores	
2.3.3	Linen room	
2.3.4	Kitchen stewarding	
2.3.5	Silver room	
2.3.6	Relationship of F&B service with housekeeping, front office, accounts, purchase & stores	
3	F & B Service Procedures	15 hours
3.1	Restaurant Setup Prior to Service	
3.1.1	Mise-en-place	
3.1.2	Mise-en-scene	
3.2	Table Service	
3.2.1	The cover, guidelines for setting up a table	
3.2.2	Taking an order	
3.2.3	Sequence of service	
3.3	Types of Service	
3.3.1	Silver service	
3.3.2	English service	
3.3.3	American service	
3.3.4	Russian service	
3.3.5	Buffet service	
3.3.6	Room service - order taking by phone and door hanger, service procedure	
3.3.7	Advantages and disadvantages of various types of services.	
3.4	Saloon Service	
3.4.1	Cabin service menu	
3.4.2	A la carte restaurant on board	
3.4.3	Port time lunch buffet	
3.4.4	Mid night buffet	
3.4.5	Gala buffet and entertainment	
3.4.6	Lido deck (pantry fast food) service	
3.4.7	Precautions during rough weather	

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Accommodation & Facility Management-I (Theory)

Objectives of course:-

Objective of course is introduction to Accommodation and Facility Management and main tasks carried out by this department.

Specific learning outcome:-

On completion of this module- the trainee shall be able to -

1. Describe role of accommodation and facility management in hospitality sector.
2. Familiarize with front office as well as housekeeping department of different types of hotels.
3. Know maintenance program carried out in hotels.

Accommodation & Facility Management-I (Theory)		45 hours
Unit 1	Introduction To Accommodation & Facility Management	15 hours
1.1	Definition of hotel	
1.2	Types of hotels	
1.3	Organizational chart of hotel	
1.4	Various departments in a large hotel	
1.5	Types of rooms	
1.6	VIP classification	
1.7	Hotel Services.	
1.8	Personality traits of accommodation staff	
1.9	Accommodation management in cruise industry	
Unit 2	The Housekeeping Department	15 hours
2.1	The Housekeeping Department	
2.1.1	Importance of housekeeping	
2.1.2	Responsibilities of housekeeping department	
	Organization structure	
	<ul style="list-style-type: none"> • Housekeeping personnel • Layout of the department • Coordination with other department 	
2.2	Housekeeping Inventories	
	<ul style="list-style-type: none"> • Cleaning equipment • Cleaning agent • Guest supplies • Linen 	
2.3	Cleaning Organization	
2.3.1	Principles of cleaning	
2.3.2	The cleaning procedures	
2.4	Cabin and Public Areas Cleaning	
	<ul style="list-style-type: none"> • Procedure for cabin cleaning • Alleyways, • Gangways, • Deck • Entrance • Lobbies • Front desk • Elevators • Staircases • Guest corridors • Public rest room 	

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	<ul style="list-style-type: none"> • Banquet halls • Dining rooms • Health club • Sauna and solariums • Swimming pool, spas and changing rooms 	
Unit 3	Managing Maintenance	15 hours
3.1	Definition of maintenance	
3.2	Types of maintenance	
3.3	Duties and responsibilities of staff	
3.4	Duties and responsibilities of maintenance department	
3.5	State goals of maintenance management system	
3.6	Identify and explain the function of several important forms and documents typically used in maintenance management	
3.7	Describe the factors to consider when hiring contract maintenance service	

Soft Skills & Corporate Communication

Objectives of course:-

Objective of course is to improve the writing skills required for the corporate world, exhibit the etiquettes and develop emotional intelligence.

Specific learning outcome:-

On completion of this module- the trainee shall be able to

- State the concept of communication.
- List the types, elements, channels, barriers and importance of communication
- Write the official letters and reports in compliance with the handouts/manuals
- Speak over telephone as per the script given in manual
- List do's and don'ts of presentations

Soft Skills & Corporate Communication		30 hours
Unit 1	Communication Process	10 hours
1.1	Concept of Communication – an introduction	
1.1.1	Elements of communication	
1.1.2	Sender, receiver, message, medium, encoding, decoding and feedback	
1.1.3	Importance of effective communication (in every field)	
1.2	Channels of communications	
1.2.1	Internal and external communications, formal and informal channels	
1.2.2	Formal channels of communication (horizontal, vertical, upward and downward communications)	
1.2.3	Informal channel of communications – grapevine	
1.3	Non-Verbal And Visual Communications	
1.3.1	Definition of non – verbal communication	
1.3.2	Types of non-verbal communications	
1.3.3	Facial expression, gestures, body language, kinesics, phonemics and physical appearance	
1.3.4	Visual communication	

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1.3.5	Signs, signals, graphs, charts, maps, color and posters.	
1.4	Barriers of communication	
1.4.1	Types of barriers – their types	
1.4.2	Physical, mechanical, semantic, cultural, psychological	
1.4.3	Ways of overcoming barriers of communication	
Unit 2	Language In Letter Writing	10 hours
2.1	Principles of official letter writing, commercial jargon, correct spelling, correct word order and FOUR ‘C’s of commercial correspondence	
2.2	Parts of letter	
2.3	Letters	
2.4	<ul style="list-style-type: none"> • Job application letter, bio data, resume • Inquiring letter (for rooms), reply to enquiry letters • Order letter and quotation letter • Claim and adjustment • Credit and collection letter • Sales letter and circular • Notice and memorandum 	
2.5	Report writing <ul style="list-style-type: none"> • Structure of report: individual and committee (short and long report) • Types of report: investigative, progressive and feasibility report Comprehension and precise	
2.6	<ul style="list-style-type: none"> • Comprehension passages related to specific fields • Precise writing and summarization 	
Unit 3	Gender sensitization, etiquettes, conflicts and SWOT analysis	10 hours
3.1	Discipline and etiquettes in performance of duties, routines, given tasks	
3.1.1	Behaviour and empathy towards other gender	
3.2	What is conflict	
3.2.1	Resolution of conflict	
3.2.2	Sources of interpersonal conflict	
3.2.3	Interpersonal conflict – transactional analysis, johari window	
3.2.4	Strategies for resolving interpersonal conflict negotiations	
3.2.5	Expressing an opinion	
3.2.6	Arguing out a matter	
3.2.7	Persuasive skills	
3.3	Ethics & SWOT Analysis	
3.3.1	What are ethics?	
3.3.2	How ethics help to ensure positive interpersonal relations?	
3.3.3	Personal value systems	
3.3.4	Personal quality primer	
3.3.5	Concept of SWOT analysis	
3.3.6	How to do SWOT analysis	

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Cost & Financial Management-I

Objectives of course:-

On completion of this module- the trainee shall be able to define ‘management’ and ‘budget’, list management processes and resources and shall illustrate the term ‘return on investment’, list the different elements of cost involving food production and shall be able to prescribe the means to control costs and purchase procedure.

Specific learning outcome:-

Objective: On completion of this module- the trainee shall be able to -

- Calculate profits; describe fixed, semi-variable and variable costs.
- List the means of preventing costs.
- Tabulate ABC analysis, purchase requisition & purchase orders.
- List objectives and importance of store keeping
- Write down the methods of receiving, recordkeeping, storing, control and proper storage of materials
- Describe ‘production planning’, price a menu
- Analyze a menu as per menu engineering principles
- Tabulate and analyze daily material consumption

Cost & Financial Management-I		30 hours
Unit 1	Management & Elements Of Costs	10 hours
1.1	Management	
1.1.1	Management objectives	
1.1.2	Importance of financial control in catering establishments	
1.2	Elements of Costs	
1.2.1	Cost analysis – food cost labour cost	
1.2.2	Overheard cost elements	
1.2.3	Control of labour cost and over head cost	
Unit 2	Controls- Purchase, Stores And Production	10 hours
2.1	Purchase Control	
2.1.1	Duties of purchase manager	
2.1.2	Objectives of purchasing	
2.1.3	Purchasing procedures	
2.1.4	Methods of purchasing	
2.1.5	Essentials of a good supplier	
2.1.6	ABC analysis	
2.1.7	Yield testing, yield calculations & yield percentages	
2.1.8	Centralized & decentralized purchasing	
2.1.9	Formats of: Purchase requisition & purchase order	
2.2	Stores Control	
2.2.1	Objectives of store keeping, Location, size & layout	
2.2.2	Methods of store keeping classification of material, minimum stock, maximum stock & reorder level	
2.2.3	Method of receiving : delivery Challans, cross checking with P.O & its documentation	
2.2.4	Computerized records	
2.2.5	Methods of stock valuation	
2.2.6	Continuous / perpetual stock taking	
2.2.7	Annual stock taking	
2.2.8	Causes of difference in book stock & physical stock	

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2.2.9	Avoidable & unavoidable causes of food spoilage	
2.3	Production Control	
2.3.1	Stores issues procedure	
2.3.2	Opening balances of raw material / Left over & material in process	
2.3.3	Production planning	
2.3.4	Pricing menu card	
2.3.5	Menu changes, menu engineering	
2.3.6	Daily material consumption record	
Unit 3	Costing, Cost Dynamics & Cost Control	10 hours
3.1	Daily food cost / gross profit with percentage & control.	
3.2	Standard portion size	
3.3	Food cost percentage	
3.4	Seat turnover ratio, REVPASH	
3.5	Average check	
3.6	Sales per menu	
3.7	Gross profit method of pricing	
3.8	Importance of pricing	
3.9	Methods of pricing concept	
3.10	Calculating kitchen profit	

Food Science – I

Objectives of course:-

Objective of course is to familiarize with food and personal hygiene in Food Service Industry, good housekeeping and pest control. They will also learn about HACCP, microbiology and food handling.

Specific learning outcome:-

On completion of this module- the trainee shall be able to

Understand the importance of personal and food hygiene in Food Service Industry

- Know pest control practices.
- Know about biological, chemical and physical food Hazards in HACCP.
- list the types of colloids in food
- Describe the browning reaction in food with its causes and effects

Food Science		30 hours
Unit 1	Introduction to Food safety	10 hours
1.1	Importance of food hygiene in food service industry	
1.2	Personal hygiene	
1.3	Hand wash programme	
1.4	Kitchen hygiene	
1.5	Cleaning schedule / checklist / inspection	
1.6	Cross contamination	
1.7	Pest control	
1.8	Control measures	
1.9	Integrated pest management	
1.10	Imo recommendations on the safe use of pesticides on board	
1.11	Good house keeping	
1.12	Pest control contractors	
1.13	De-ratting certificates	

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1.14	Dish washing methods - manual & machine, its merits / demerits	
Unit 2	HACCP	10 hours
2.1	A brief history of HACCP	
2.2	Define Hazard, biological, chemical and physical food Hazards	
2.3	Seven principles of HACCP	
2.4	Define control measures, CCP and critical limits	
2.5	Corrective action, verification, documentation & records review	
2.6	Ship Stores & Import of products of animal origin into European Union	
Unit 3	Food Hygiene on Board ship	10 hours
3.1	General import conditions of products of animal origin in eu	
3.2	Role of food hygiene inspector by officials of bip (border inspection posts)	
3.3	Enforcement issues	
3.4	Sampling	
3.5	Seizure of food	
3.6	Public health incidents	
3.7	Vessel sanitation programme	
3.8	Food safety & inspection services	
3.9	CDC (centre for disease control)	
3.10	USPH	
3.11	Micro biology	
3.12	Introduction to microbiology	
3.13	Bacteria / yeasts / mould / viruses / parasites	
3.14	Sources, symptoms / viruses / parasites & prevention of following pathogenic bacteria	
3.15	Staphylococcus aureus,	
3.16	Clostridium perfringens	
3.17	Bacillus cereus	
3.18	Trichinosis, E- coli, norovirus	
3.19	Clostridium botulium	
3.20	Salmonella / strepto coccus	
3.21	Factors favourable for bacteria growth / FATTOM	
3.22	Time & temperature control	
3.23	TDZ	
3.24	Big thaw	
3.25	Rechauffe	
3.26	Principles of food storage in refrigerators, chiller & freezes	
3.27	Hot & cold food display & food holding units	
3.28	Food thermometers type & its use	
3.29	Stock rotation, FEFO, FIFO, date marking	

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Theory

SEMESTER –II

Maritime Studies-II (Theory)

Objectives of course:-

Objective of course is to familiarize with Personal Safety, Personal Survival Technique & Social Responsibilities of staffs. They will also know about the Fire Prevention, Fire Fighting operations and Proficiency in Elementary First Aid.

Specific learning outcome:-

After completion of this module, the student shall be able to –

- List the safety precaution one has to observe onboard in day-to-day operations and Survival at Sea
- Fire extinguishing systems
- Demonstrate the basic first aid given in case of casualty onboard in compliance with the training manual of PEFA.

Maritime Studies-II (Theory)		30 hours
Unit 1	Personal Safety & Social Responsibilities & Personal Survival Technique	10 hours
1.1	Emergency procedures onboard	
1.2	Pollution prevention	
1.3	Safety philosophy and safe working practices	
1.4	Safe thinking and accident prevention onboard	
1.5	Communication onboard	
1.6	Interpersonal relationship	
1.7	Social responsibilities	
1.8	Introduction, safety and survival	
1.9	Emergency situations	
1.10	Evacuation	
1.11	Survival craft and rescue boats	
1.12	Personal life saving appliances	
1.13	Personal life saving appliances (demonstrations)	
1.14	Survival at sea	
1.15	Emergency radio equipment	
1.16	Helicopter assistance	
Unit 2	Fire Prevention & Fire Fighting	10 hours
2.1	Introduction, safety principle	
2.2	Theory of fire	
2.3	Fire prevention	
2.4	fire detection	
2.5	Fixed fire extinguishing systems	
2.6	Fire fighting appliances & equipment	
2.7	Shipboard fire fighting organization	
2.8	Fire fighting methods & procedures	
Unit3	Proficiency in Elementary First Aid	10 hours
3.1	General principles	
3.2	Body structure & functions	
3.3	Positioning of casualty	
3.4	The unconscious casualty	

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3.5	Resuscitation	
3.6	Bleeding	
3.7	Management of shock	
3.8	Burns and scalds and accidents caused by electricity	
3.9	Rescue & transport of casualty	

Food Production-II (Theory)

Objectives of course:-

Objective of course is to familiarize with different Kinds of Stocks, Basic Mother Sauces with common derivatives and variety of meats. Also preparation of Specialty / International Soups, it's garnishes and accompaniments.

Specific learning outcome:- (As per unit. One for each unit)

Learning Objectives:

Students will be able to explain –

- Preparation of stocks, clear soups, consommé, its garnishes and accompaniments
- Preparation of Basic Mother Sauces and its Common derivatives.
- The factors that give good quality to meat and cooking methods of meat.
- List various cuts of meat and poultry and state its characteristics and uses.

Food Production-II (Theory)		45 hours
Unit 1	Stocks And Soups	15 hours
1.1	Different Kinds of Stocks White Stocks White Beef Stock White mutton stock White Veal Stock White Chicken Stock Fish Stock	Brown Stock Estouffade Brown mutton stock Brown Veal Stock Brown Game Stock Remouillage
1.2	Soups	
1.2.1	Classification of soups	
1.2.2	Description and cooking methods of thick, thin and cold soups	
1.2.3	Preparation of clear soups, consommé, its garnishes and accompaniments	
1.2.4	Specialty soups/ international soups	
1.2.5	Garnish and service of soups	
Unit 2	Sauces & Glazes	15 hours
2.1	Importance of sauces	
2.2	Preparation of basic mother sauces <ul style="list-style-type: none"> • Béchamel • Veloute • Espagnole • Hollandaise • Tomato • Mayonnaise 	
2.3	Common derivatives of basic mother sauces	
Unit 3	Meat And Poultry	15 hours
3.1	Factors that give meat good quality	
3.2	How to judge quality of	

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3.3	a) beef b) lamb c) pork Cuts of meat (diagrams with common parts and cuts)	
3.4	a) Cuts of lamb b) cuts of pork c) cuts of beef	
3.5	General guidelines for determining doneness in meats	
3.6	Trimming a tender loin	
3.7	Cutting and pounding cutlets	
3.8	Shredding and mincing meats	
3.9	Working with variety organ meats	
3.10	Carving techniques	
3.11	Types of birds included in poultry	
3.12	Criteria for choosing bird	
3.13	Popular cuts of poultry	
3.14	General guidelines for determining doneness in poultry	
	Trussing a poultry	

Food & Beverage Service-II (Theory)

Objectives of course:-

Objective of course is to know about classification of non alcoholic beverages and breakfast course. Students will also know about function of F & B control system and menu compiling.

Specific learning outcome:-

On completion of this module- the trainee shall be able to

- Explain types of breakfast, courses of breakfast & stimulating beverage prepared & served.
- Explain function of control system, different plans & payment.
- Define menu, types of menu & menu compiling.

Food & Beverage Service-II (Theory)		45 hours
Unit 1	Breakfast & Non-Alcoholic Beverages	15 hours
1.1	Breakfast – English, continental, American, north Indian, south Indian & buffet	
1.1.1	Advantages of a buffet breakfast	
1.2	Non alcoholic beverages	
1.2.1	Classification of non alcoholic beverages- stimulating, refreshing, nourishing	
1.3	Tea	
1.3.1	Manufacturing of tea	
1.3.2	Types of tea – black tea, green tea, jasmine tea, earl grey, white tea, oolong tea, puer, tisanes	
1.3.3	Grades of tea	
1.4	Coffee	
1.4.1	Manufacturing of coffee	
1.4.2	Coffee (common types) – espresso, instant coffee, filter coffee, de-caffeinated, Irish coffee	
1.4.3	Preparation of coffee – general guidelines, coffee percolator	
1.4.4	Espresso variants - Espresso Americano, Latte, Cappuccino, Macchiato, Ristretto Espresso Lungo, Doppio, Corretto, Espresso Romano, Espresso Con Panna, Flat White, Mocha , Café Freddo, Affogato, Bicerin	
1.5	High tea	

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1.6	Types of table waters	
Unit 2	Control Systems	15 hours
2.1	Kitchen order ticket (KOT)	
2.1.1	Bar order ticket (BOT)	
2.1.2	Filling up a KOT	
2.1.3	Types of KOT	
2.1.4	KOT control	
2.2	Methods of billing and payments	
2.2.1	Difference modes of payments – Cash, Credit/ Debit Card,	
2.2.2	Travelers Cheque, Electronic Fund Transfer – RTGS, NEFT, IMPS & Mobile Wallets	
2.3	Care to be taken while handling cash	
2.4	Dealing with international currencies	
Unit 3	Menu	15 hours
3.1	History of menu	
3.2	Types of menu - a la carte & table d hote, children's menu, sr. Citizens menu, therapeutic menu, cyclic menu, California menu.	
3.3	Courses in French classical menu with examples of dishes served	
3.4	Types of meals- breakfast, brunch, elevenses, lunch, afternoon tea, high tea, dinner, supper	
3.5	Food and accompaniments	
3.6	Service of popular classical dishes	
3.7	Menu compiling	
3.7.1	Balancing a menu	
3.7.2	Western menu	
3.7.3	Indian menu	
3.7.4	Cyclic menu for a) merchant ships b) industrial or institutional catering	
3.7.5	Menu structure and lay out	

Accommodation & Facility Management-II (Theory)

Objectives of course:-

Objective of course is to know about various sections of Front Office Departments and its operation.

Students will also learn about standard content required in the guestroom and interior decoration of room.

Specific learning outcome:-

On completion of this module- the trainee shall be able to -

- Know basics and importance of front office
- Rules of the house for the front office staff
- Know about guestroom furniture, fixture and fittings.
- Interior decoration of the hotel room.

Accommodation & Facility Management-II (Theory)		45 hours
Unit 1	Hotel Lobby And Front Office	15 hours
1.1	Introduction and importance of front office	
1.2	Size of lobby	
1.3	Reception counter	

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1.4	<ul style="list-style-type: none"> • Equipment and furniture Various sections of front office departments <ul style="list-style-type: none"> • Staff organization of front office in small, medium and large hotel 	
1.5	Rules of the house for the front office staff	
1.6	Rules of the hotels which guest are required to follow	
1.7	Guest amenities	
1.8	Departments and sections with which front office communicates and coordinates.	
1.9	Job descriptions of front office staff	
1.10	Tariff structure	
1.11	Hotel entrance, lobby and front office staff <ul style="list-style-type: none"> • Functions of the receptionist • Job descriptions • The art of reception • Rules of the house for the front office staff • Bell desk 	
Unit 2	Standard Content of a Guestroom	15 hours
2.1	Guestroom furniture	
2.1.1	Furniture arrangement	
2.1.2	Guestroom fixture and fittings	
2.1.3	Beds, mattresses, bedding	
2.1.4	Soft furnishing	
2.1.5	Guestroom accessories	
2.1.6	Placement of guest supplies	
2.1.7	Guestroom <ul style="list-style-type: none"> • Importance of the guestroom to a guest • Guestroom status • Guest floor rules 	
2.1.8	Care and cleaning of different surface <ul style="list-style-type: none"> • Metals • Glass • Ceramics • Wood • Stone • Leather • Rubber 	
Unit 3	Interior Decoration	15 hours
3.1	Colour	
3.2	Lighting	
3.3	Floor covering and finishes	
3.4	Ceiling and their maintenance	
3.5	Wall coverings	
3.6	Windows and windows treatments	

Environmental Studies

Objectives of course:-

Objective of course is to understand role of an individual in conservation of natural resources and equitable use of resources for sustainable lifestyles. It will help to know genetic species,

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ecosystem diversity, climate change, global warming, understanding existence and co-existence of human being.

Specific learning outcome:-

On completion of this module- the trainee shall be able to know -

- Definition, scope and importance of environmental studies.
- Renewable and non-renewable resources & associated problem
- Role of an individual in conservation of natural resources.
- Equitable use of resources for sustainable lifestyles.
- Introduction to genetic species and ecosystem diversity
- Climate change, global warming.
- Human population & the environment and understanding existence and co-existence.

Environmental Studies (Theory)		45 hours
Unit 1	The Multidisciplinary Nature Of Environmental Studies	15 hours
	Definition, scope and importance Need for public awareness Natural resources Renewable and non-renewable resources natural resources & associated problem. A. Forest resources: use and over-exploitation, deforestation, case studies. Timber extraction, mining, dams and their effects on forests and tribal people. B. Water resources: use and over-utilization of surface and ground water, floods, drought, conflicts over water, dam's benefits and problems. C. Mineral resources: use and exploitation, environmental effects of extracting and using mineral resources, case studies. D. Food resources: world food problems overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies. E. Energy resources: growing energy needs, renewable and non renewable energy sources, use of alternate energy sources. Case studies. F. Land resources: land as a resource, land degradation, man induced landslides, soil erosion and desertification. • role of an individual in conservation of natural resources. Equitable use of resources for sustainable lifestyles. Ecosystems • concepts of an ecosystem. • structure and function of an ecosystem. • producers, consumers and decomposers. • energy flow in the ecosystem. • ecological succession. • food chains, food webs and ecological pyramids. • introduction, types, characteristic features, structure and function of the following ecosystem: a. Forest ecosystem b. Grassland ecosystem c. Desert ecosystem d. Aquatic ecosystem (ponds, stream lakes, rivers, oceans, estuaries)	
Unit 2	Biodiversity And Its Conservation, Environmental Pollution & Social Issues	15 hours
	Biodiversity and Its Conservation • Introduction-definition: genetic species and ecosystem diversity • Bio-geographical classification of India	

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	<ul style="list-style-type: none"> • Value of biodiversity : Consumptive use, productive use, social, ethical, aesthetic and option values • Bio-diversity at global, national, local levels • India as a mega diversity nation • Hot spots of bio-diversity • Threats to biodiversity: habitat loss, poaching of wild life, man-wildlife conflicts • Endangered and endemic species of India • Conservation of biodiversity: in- situ and ex-situ conservation of biodiversity Environmental pollution definition – • Causes, effects and control measures of: <ul style="list-style-type: none"> a. Air pollution b. Water pollution c. Soil pollution d. Marine pollution e. Noise pollution f. Thermal pollution g. Nuclear hazards • Solid waste management: causes, effect and control measures of urban and industrial wastes • Role of an individual in prevention of pollution • Pollution case studies • Disaster management: floods, earthquake, cyclone and land slides social issues and environment • From unsustainable to sustainable development • Urban problems related to energy • Water conservation, rain water harvesting, watershed management • Re-settlement and rehabilitation of people: its problems and concerns. Case studies. • Environmental ethics: issues and possible solution • 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 	
Unit 3	Human Population & The Environment and Understanding Existence and Co-Existence	15 hours
	Human population & the environment <ul style="list-style-type: none"> • Population growth, variation among nations • Population explosion- family welfare program • Environment and human health 	

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	<ul style="list-style-type: none"> • Human rights • Value education • HIV/AIDS • Women and child welfare • Role of information technology in environment and human health • Case studies <p>Understanding Existence and Co-existence</p> <ul style="list-style-type: none"> • Interrelation and cyclicity between material order, bio-order, animal order and human order • Understanding the human conduct : relationship in family, justice in relationship, relationship of human with nature (environment), human behaviour, human values, nature & morality • Understanding the human society: dimensions of human endeavour and objectives, interrelationship in society, mutual fulfillment and cyclist in nature. 	
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Cost & Financial Management-II

Objectives of course:-

Objective of course is to know the Basics of Accounting, Meaning, Concept and importance of Accounting. They will learn how to journalize and posting of Ledger Book and will be able to prepare different subsidiary Books. Also they will know how it is important in these days as far as industry and personal financial accounting is concerned.

Specific learning outcome:-

After studying this module, the students will be able to -

- Know the basic accounting concepts and importance of Accounting
- Understand subsidiary books and classify cash and credit transaction,
- Draft format of various types of cash book, purchase & sales book, analytical petty cash book.
- Write down the Journal Entries and do the Posting in to Ledger Accounts
- Prepare different subsidiary books.

Cost & Financial Management-II (Theory)		45 hours
Unit 1	Basics of Accounting	15 hours
1.1	Introduction to Accounting	
1.1.1	Introduction to accounting, meaning, definition of accounting	
1.1.2	Features of accounting, objectives, functions and importance of accounting.	
1.1.2	Basic terms of accounting	
1.1.3	Concepts & conventions & features of accounting principles.	
1.2	Double Entry Book Keeping System	
1.2.1	Meaning, features, principles & advantages of double entry book keeping	
1.2.2	Classification of accounts- personal-non personal, real and nominal.	
1.2.3	Rules of debit & credit	

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Unit 2	Journal & Ledger	15 hours
2.1	Journal	
2.1.1	Meaning, features, functions and importance of journal	
2.1.2	Specimen of a journal	
2.1.3	Recording transaction in the journal and journalizing simple, compound entries	
2.1.4	Practice of practical problems of ledger	
2.2	Ledger	
2.2.1	Meaning, need and features of ledger	
2.2.2	Distinction between journal and ledger	
2.2.3	Points to be noted while preparing ledger accounts	
2.2.4	Specimen of ledger account and ledger posting	
2.2.5	Practice of practical problems of ledger	
Unit 3	Different Subsidiary Books	15 hours
3.1	Subsidiary Books	
3.1.1	Meaning, need and advantages of subsidiary books	
3.1.2	The different subsidiary books: sales book, purchase book, purchase return book (return outward book), sales return book (return inward book), cash book, bills receivable book, bills payable book, journal proper.	
3.1.3	Practice of practical problems of subsidiary books	

Theory

SEMESTER –III

Maritime Studies-III (Theory)

Objectives of course:-

Objective of the course is to learn Marine Safety, procedure of crowd management during emergencies in passenger/ cruise ships and procedures for on board emergencies.

Specific learning outcome:-

After completion of this module, the student shall be able to –

- Describe standard marine communication phrases required during emergency operation.
- List down the procedure of crowd management during emergencies in passenger/ cruise ships.
- List down the procedures one has to follow onboard during emergencies.

Maritime Studies-III (Theory)		30 hours
Unit 1	Marine Safety	10 hours
1.1	Risk Assessment	
	<ul style="list-style-type: none"> • Main elements of risk assessment • Detailed risk assessment 	
1.2	Health Surveillance	
	<ul style="list-style-type: none"> • Purpose • Application 	
1.3	Safety Committee	
	<ul style="list-style-type: none"> • Safety officers & representatives 	

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1.4	<ul style="list-style-type: none"> • Safety inspections • Check list for safety officer's inspection • Accident investigation & records of accidents <p>Personal Protective Equipment</p> <ul style="list-style-type: none"> • Types of equipment • Face & eye protection • Respiratory protective equipment • Body protection • Protection against drowning 	
1.5	<p>Means of access & Safety Signs</p> <ul style="list-style-type: none"> • Safe movement • Boarding arrangements • Entry into dangerous spaces • 'Permit to work' system • Safety signs 	
1.6	<p>Fire Precautions</p> <ul style="list-style-type: none"> • General • Spontaneous combustion • Machinery spaces & galleys 	
1.7	<p>Security onboard</p> <ul style="list-style-type: none"> • Stowaways • Piracy • General Precautions 	
1.8	<p>Living onboard</p> <ul style="list-style-type: none"> • Health & hygiene • Working in hot climates • Substances hazardous to health • Cuts, burns & scalds 	
1.9	<p>Safe Movement</p> <ul style="list-style-type: none"> • General • Transit areas • Lighting • Watertight doors • Manual handling techniques • Code of hand signals 	
1.10	Provisions of balanced diet onboard as per MS act 1958	
Unit 2	Crowd Management	10 hours
2.1	Life saving appliances & control plans	
2.2	Assist passengers en route to assembly and embarkation stations	
2.3	Mustering procedures	
2.4	Communication in case of emergency	
2.5	Instructions for passenger assembly personnel	
2.6	Abandon ship procedure	
Unit 3	Crisis Management & Human Behavior Training	10 hours
3.1	Familiarization with ships design, layout, emergency plans, procedures and drills	
3.2	Optimization of resources	
3.3	Reaction to alarm	
3.4	A pre planned drill	
3.5	Control response to emergencies	

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3.6	Human behaviour and responses	
3.7	Establish and maintain effective communications	
3.8	Practical exercises	

Food Production-III and Patisserie (Theory)

Objectives of course:-

Objective of course is to define/describe/list/illustrate the doneness during cooking, fabrication meat, poultry & seafood; charcuterie, its products, their composition, processing methods & other specially processed meats. Introduction to bakery and basic bakery products.

Specific learning outcome:-

On completion of this module the student shall have a thorough knowledge and be able to –

- Know various types of games and preparation method.
- Learn about charcuterie Products.
- Do cooking, fabrication of meat, poultry & seafood.
- Know ingredients used in bread making.
- Know about different bakery products.

Food Production and Patisserie - I (Theory)		30 hours
Unit 1	Games and Charcuterie	10 hours
1.1	Definition of games	
1.1.2	Hanging games	
1.1.3	Various types of games and preparation method	
1.2	Introduction to Charcuterie	
1.2.1	Charcuterie products	
1.2.2	Meat and non meat ingredients	
1.2.3	Curing, drying and smoking sausages, ham and bacon	
1.2.4	Other specially processed and cured meats	
Unit 2	Eggs, Breakfast and Fish Cookery	10 hours
2.1	Various cooking methods of eggs <ul style="list-style-type: none"> • Shirred eggs, quiche, scrambled eggs, omelettes, frittatas, Poached, Benedict 	
2.2	Pancakes and toasts (French toast)	
2.3	Breakfast cereals and grains	
	Fish	
2.4	Common classification of fish	
2.4.1	i) White Fish (Round) ii) Lean Fish (Flat) iii) Oily Fish	
	iv) Shell Fish	
2.4.2	How to choose a fish	
2.4.3	Cooking methods	
2.4.4	Common cuts of fish:- fillet, paupiette, supreme, meuniere, darne,	
2.4.5	steak	
2.4.6	General guidelines for determining doneness in fish	
2.4.7	Scaling and trimming fish	
2.4.8	Shell fish fabrication	
2.4.9	Working with live lobster	
	Cooking <ul style="list-style-type: none"> • Lobster • Shrimp • Cleaning a crab 	

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	<ul style="list-style-type: none"> • Cleaning and opening oysters • Cleaning octopus and squid 	
Unit 3	Introduction to Bakery and Basic Bakery Products	10 hours
3.1	Safe food Handling practices	
3.1.2	Tools, equipment & key ingredients required in baking	
3.2	Understanding different types of bread	
3.2.1	Ingredients used in bread making	
3.2.2	Understanding different methods in bread making	
3.2.3	Basic faults in bread making	
3.3	Pastry	
3.3.1	Basic pastries	
3.3.2	By products of pastries	

Food & Beverage Service-III (Theory)

Objectives of course:-

Objective of course is to learn about alcoholic beverage terms, wines, spirits, beer, liqueurs & aperitifs, cocktails & mocktails required for Maritime Hospitality industry.

Specific learning outcome:-

On completion of this module- the trainee shall be able to -

- Explain various types of wines, spirits, beer, liqueurs & aperitifs, cocktails & mocktails.
- Define alcoholic beverage terms.

Food & Beverage Service-III (Theory)		30 hours
Unit 1	Fermented Beverages	10 hours
1.1	Wines	
1.1.1		
1.1.2	Introduction	
1.1.3	Types of wines	
1.1.4	Viticulture	
1.1.5	Vinification	
1.1.6	Factors affecting the quality of wines	
1.1.7	Wine regions of France and districts	
1.1.8	Reading a wine label	
1.1.9	Matching wines with food	
1.1.10	Fortified wines – types sherry & port	
1.1.11	Wine laws of France	
	Major grape varieties and their characteristics – Pinot Noir, Chardonnay, Shiraz, Gewürztraminer, Sauvignon Blanc, Viognier, Merlot, Cabernet Sauvignon, Gamay	
1.2	Champagne	
1.2.1	Manufacture of champagne	
1.2.2	Types of champagne	
1.2.3	Sweetness scale of champagne	
1.2.4	Brand names of champagne	
1.3	Beer	
1.3.1	Introduction	
1.3.2	Ingredients used for making beer	
1.3.3	Manufacture of beer	
1.3.4		

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1.3.5	Types of beer – lager, pilsner, ales, porter, stout.	
1.3.6	Mixed drinks using beer – shandy, black velvet, red eye, colorado	
1.4		
1.4.1	Indian and international brand names of beer	
1.4.2	Aperitifs Vermouths Bitters	
Unit 2	Distilled Beverages	10 hours
2.1	Distillation - pot still and patent still methods	
2.1.1	Alcohol content - proof, OIML scale, sikes scale,	
2.2	Spirits	
2.2.1	Whisky - manufacture of whisky	
2.2.2	Types of whiskies, characteristics and brand names – scotch, Irish, bourbon, Tennessee, Canadian	
2.2.3	Types of scotch whisky	
2.2.4	Rum – types, manufacturing, Indian & International brand names	
2.2.5	Vodka- types, Indian & International brand names	
2.2.6	Brandy , cognac & armagnac – grape varieties, manufacturing, grades, brand names of cognac	
2.2.7	Gin- types , Indian & International brand names	
2.2.8	Tequilla – types and brand names	
2.2.9	Rare/uncommon spirits – poteen, mescal, arrack, feni, akvavit, calvados, pear brandy, slivovitz, pisco, korn,	
2.2.10	Popular Liqueurs , base flavour / colour, country of origin	
2.2.11	Basic knowledge of liqueurs & aperitifs service	
Unit 3	Glossary Of Alcohol Beverage Terms	10 hours
	<ul style="list-style-type: none"> • Alcohol • Corky • Filtering • Racking • Cider • Grist • Cremant • Fining • Mash • Hock • Mead • Mulled wines • Cask • Esters • Hydrometer • Perry • Mistelle • Maderization • Pulque • Vigneron • Bodegas • Edelfaule • Frappe • Bagasse • Bonne Chauffe • Bouquet • Eiswein • Alembic Charantaise • Crust • Malt • Congeners • Cordials • Claret • Feints • Vinification • Distillation • Proof • Punt • Wash • Sulphuring • Cellar • Estufa • Mousseux • Hops • AOC • Chaptalisation • Foreshots • Lees • Body • Must • Wort • Bloom • Decanting • Flor • Digestifs • Age • Kilning • Brouillis • Vintage • Fortified 	

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Accommodation & Facility Management-III (Theory)

Objectives of course:-

Objective of course is to learn about guest cycle and forms, formats, records & registers need for Accommodation Department. Students will also know systematic layout planning and project reports handling.

Specific learning outcome:-

On completion of this module- the trainee shall be able to -

- Room reservation
- Registration procedure
- Departure procedure
- Hotel design considerations
- Designing and planning a restaurant
- Formulation of project report / feasibility report

Accommodation & Facility Management-III (Theory)		45 hours	
Unit 1	Front office and guest handling	15 hours	
1.1	Guest cycle		
1.2	Stages of guest contact with hotel		
1.3	Room reservation		
	<ul style="list-style-type: none"> • Overbooking 		
1.4	Guest arrivals		
	<ul style="list-style-type: none"> • Preparing for guest arrival • Pre-registration 		
1.5	Receiving Guests		
	<ul style="list-style-type: none"> • Welcoming and greeting of guest assigning of room 		
1.6	Registration procedure		
	<ul style="list-style-type: none"> • No show 		
1.7	Rooming of a guest		
1.8	During stay of guest		
	<ul style="list-style-type: none"> • Message handling • Change of room 		
1.9	Locking system in hotels		
	<ul style="list-style-type: none"> • Types of keys • Control of keys 		
1.10	Departure procedure		
	<ul style="list-style-type: none"> • Safe deposit facility • Guest history 		
Unit 2	Housekeeping Control Desk		15 hours
2.1	Forms, formats, records and registers		
2.2	Coordination with other department		
2.3	Handling telephone calls		
2.4	Handling difficult situation		
2.5	Handling room transfer		
Unit 3	Hotel Design	15 hours	
3.1	Introduction		
3.2	Design considerations		
3.3	Systematic Layout Planning (SLP)		
3.4	Thumb rules for allocations of space in a hotel		
3.5	Formulation of project report / feasibility report		

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3.6 3.7 3.8	Blueprint Parking, walks and drives Restaurant design <ul style="list-style-type: none"> • Introduction -history of restaurant, types of restaurant and their themes • Designing and planning a restaurant • Bar design 	
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Cost & Financial Management-III

Objectives of course:-

Objective of course is to know the definition, meaning, features and purpose of a Trial Balance specimen & methods of trial balance. Meaning and effects of errors, introduction, meaning and need of depreciation, methods of depreciation, introduction, meaning definition, importance and types of provision & reserves.

Specific learning outcome:-

- After studying this module, the students will be able to
- Find out different types of errors of errors
- Know the definition, meaning, features, Specimen & different methods of trial balance
- Able to find different types of errors and rectification of the same
- Able to understand the different methods of depreciation
- Know the meaning, definition and importance of provision and reserve.

Cost & Financial Management-III (Theory)		30 hours
Unit 1	Trial Balance and Types of Errors	10 hours
1.1	Definition, meaning, features and purpose of a trial balance	
1.1.1	Specimen of trial balance	
1.1.2	Methods of trial balance	
1.1.3	Practice of practical problems of ledger	
1.2	Types of Errors	
1.2.1	Meaning and effects of errors	
1.2.2	Types of errors	
1.2.3	Errors affecting and not affecting trial balance	
Unit 2	Depreciation	10 hours
2.1	Introduction, meaning and need of depreciation	
2.2	Methods of depreciation:	
2.2.1	Fixed Installment Method: features, merits & demerits of FIM (SLM)	
2.2.2	Reducing Balance Method: features, merits & demerits of RBM (WDV)	
2.3	Practice of practical problems of depreciation.	
Unit 3	Provisions and Reserves	10 hours
3.1	Provisions	
3.1.1	Introduction, meaning definition and importance of provision	
3.1.2	Types of provision	
3.2	Reserves	
3.2.1	Definition and importance of reserves	
3.2.2	Types of reserves	
3.2.3	Distinction between revenue reserve and capital reserve	

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3.2.4	Distinction between reserve and provision	
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Principles of Management

Objectives of course:-

Objective of course is to make the students familiar with management as a process and to apply the same in Maritime studies.

Specific learning outcome:-

After studying this module, the students will be able to -

- Meaning, definition of management
- Levels of management and its functions
- Concept of PODSCORB
- Planning process
- Organization structure : meaning, type and factors of organization structure
- Directing, leadership, co-ordination, controlling & MBO
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Principles of Management (Theory)		30 hours
Unit 1	Introduction of Management	10 hours
1.1	Meaning, definition of management	
1.2	Six m's of management	
1.3	Features & importance of management	
1.4	Management is art, science and profession	
1.5	Managerial skills – roles	
1.6	Levels of management and its functions	
1.7	Concept of podscorb	
1.8	Frederick Winslow Taylors's scientific management	
1.9	Henri Fayol's principals of management	
Unit 2	Planning and Organizing	10 hours
2.1	Planning	
2.1.1	Definition, nature and importance of planning	
2.1.2	Elements of planning	
2.2.3	Planning process	
2.1.3	Limitation of planning	
2.2	Organizing	
2.2.1	Definition, nature of organising	
2.2.2	Importance of organising	
2.2.3	Organization structure : meaning and factors of organization structure	
2.2.4	Importance of organization structure	
2.2.5	Types of organization structure : formal and informal	
2.2.6	Formal organization structure	
2.2.7	Informal organization structure	
2.2.8	Departmentation : meaning and types	
2.2.9	Formal organization structure	
2.2.10	Span of control: meaning and importance	
2.2.11	Centralization : meaning, features and factors	
2.2.12	Decentralization : meaning, and factors	
2.2.13	Delegation: meaning and relationship	
Unit 3	Directing, Leadership, Co-Ordination, Controlling & MBO	10 hours
3.1	Directing	

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3.3.1	Meaning and principals of directing	
3.2	Leadership	
3.2.1	Definitions and features of leadership	
3.2.2	Leadership qualities of a good leader	
3.3.	Co-ordination	
3.3.1	Meaning, importance of co-ordination	
3.3.2	Steps in effective co-ordination	
3.4	Controlling	
3.4.1	Meaning, importance of controlling	
3.4.2	Steps in control process	
3.5	MBO	
3.5.1	Definition and features of MBO	
3.5.2	Process of MBO	

Food Science –III

Objectives of course:-

Objective of course is to learn importance of basic nutrients, basic for meal planning, food preservation and foods adulteration. They will also learn about evaluation of foods & food laws.

Specific learning outcome:-

On completion of this module the student will be able to know –

- Importance of nutrition
- Effect of cooking on various nutrients
- Balanced diet and basic for meal planning
- Food preservation
- Foods adulteration
- Sensory assessment of food quality
- Foods laws, authorities and related standards

Food Science (Theory)		30 hours
Unit 1	Introduction	10 hours
1.1	Importance of nutrition	
1.2	Basic nutrients	
1.3	Function of various nutrients	
1.4	Importance of water to the human body	
1.5	Basic five food groups	
1.6	Nutrients loss while storing or preparation of foods	
1.7	Effect of cooking on various nutrients	
1.8	Balanced diet	
1.9	Basic for meal planning, health concerns - dietary fibers, cholesterol, sodium	
1.10	Food additives: definition uses types	
Unit 2	Food Preservation & Adulteration	10 hours
2.1	Food preservation	
2.1.1	Chemical	
2.1.2	Irradiation	
2.1.3	Low temperature – refrigeration and freezing	
2.1.4	High temperature – pasteurization, canning, de-hydration and smoking	

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2.1.5 2.2 2.2.1	Storage, cold storage, temperature control, correct use of refrigeration, freezer for storing food stocks, rotation and cooling Foods Adulteration Common food adulterants present:- a) milk b) sugar c) turmeric d) chilly powder d) tea and coffee e) semolina flowers f) ghee and butter g) margarine and oil	
Unit 3	Evaluation of Foods & Food Laws	10 hours
3.1 3.1.1 3.1.2 3.1.3 3.2 3.2.1 3.2.2 3.3	Objectives Sensory assessment of food quality Methods Introduction to proximate analysis of food constituents Flavours Definition of flavour, influence of chemical, constituents and other factors on flavour Types of flavors, flavoring extracts, natural and synthetic flavour intensifier Control of flavour in cooking process of Food Foods laws, authorities and related standards (PFA, FPO, MFPO, MMPO, Agmark, BIS & FSSAI, Organic certification, vegetarian and non-vegetarian visual symbols on packed foods)	

Theory

SEMESTER –IV

Maritime Studies-IV (Theory)

Objectives of course:-

Objective of course is to explain standard marine communication phrases (SMCP), standard marine navigational vocabulary, general engineering knowledge and hazardous substances used in maritime industry.

Specific learning outcome:-

After completion of this module, the student shall be able to know-

- Urgency on board ships
- Communication with emergency services
- Internal communication
- Cruise ship dictionary
- Engineering Dept. organisation onboard ships
- Cold & hot water system onboard
- Air conditioners & refrigeration machinery
- Dry cleaning operations
- Safe use of pesticides
- Electrical equipment
- Laundry equipment
- Maintenance of galley equipment

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Maritime Studies-IV (Theory)		30 hours
Unit 1	Standard Marine Communication Phrases (SMCP)	10 hours
1.1	Distress	
1.2	Person overboard	
1.3	Medical assistance	
1.4	Urgency	
1.5	Safety communication	
1.6	Environmental protection	
1.7	Communication with emergency services	
1.8	Search and rescue	
1.9	Helicopter operation	
1.10	Damage control	
Unit 2	Standard Marine Navigational Vocabulary	10 hours
2.1	Miscellaneous phrases	
2.2	Internal communication	
2.3	Cruise ship dictionary	
Unit 3	General Engineering Knowledge	10 hours
3.1	Engineering dept. organization onboard ships	
3.2	Duties & responsibilities of engine room personal	
3.3	Onboard	
3.4	Various machinery in engine room & their purpose	
3.5	General engine room layout	
3.6	Ships emergencies & actions	
3.7	Cold & hot water system onboard	
3.8	Various leakage stopping material used onboard	
3.9	Emergencies in engine room & action	
3.10	Shipboard maintenance	
3.11	Corrosion	
3.12	Paints, pigments, vehicles	
3.13	Surface preparation	
3.14	Maintenance of galley equipment	
	3.2 Maintenance	
3.2.1	General	
3.2.2	Air conditioners & refrigeration machinery	
3.2.3	Electrical equipment	
3.2.4	Laundry equipment	
	3.3 Hazardous Substances	
3.3.1	General	
3.3.2	Asbestos dust	
3.3.3	Dangerous goods	
3.3.4	Dry cleaning operations	
3.3.5	Safe use of pesticides	

Advance Food Production-IV and Patisserie (Theory)

Objectives of course:-

Objective of course is to learn about vegetable, salads, farinaceous cookery, preparation of sandwiches, hors d'oeuvre and canapes. They will also study cakes, custards, creams and frozen desserts.

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Specific learning outcome:-

On completion of this module the student shall have a thorough knowledge and be able to –

- Define/describe/list/illustrate Salads – composition, types, dressings, fillings, garnishes, breads & spreads, flavored butters.
- Know presentation styles & Guidelines.
- Learn vegetables – classification, selection.
- Know methods & effects of cooking, accompaniments, garnishes & various presentations.
- Know pasta and noodles origin, composition, selection, preparation, pairing with sauces, service & the special items that are incorporated in this cookery.

Food Production-IV and Patisserie (Theory)		30 hours
Unit 1	Vegetable, Salads and Farinaceous Cookery	10 hours
1.1	Vegetable cookery	
1.2	Classification of vegetables	
1.3	Selection of vegetables	
1.4	Methods of cooking	
1.5	Effect of cooking on vegetables	
1.6	Introduction to Salad	
1.6.1	Composition of a salad	
1.6.2	Types of salad <ul style="list-style-type: none"> ➤ Pasta salads ➤ Meat and poultry salads ➤ Sea foods salads ➤ Fruit salad 	
1.6.3	Salad dressing, proper dressing amount, handling and storage	
1.7	Farinaceous Cookery	
1.7.1	Introduction to farinaceous cookery	
1.7.2	Selection and preparation of ingredients	
1.7.3	How to make fresh pasta and noodles	
1.7.4	Fresh egg pasta	
1.7.5	Pairing pasta with sauces	
1.7.6	Serving fresh and dried pasta	
1.7.7	Special items incorporated in farinaceous cookery	
Unit 2	Sandwiches, Hors D'Oeuvre and Canapes	10 hours
2.1	Sandwiches	
2.1.1	Bread and spreads for sandwiches	
2.1.2	Making flavored butters	
2.1.3	Fillings	
2.1.4	Guidelines on sandwich making	
2.1.5	Garnishes presentation styles	
2.2	Guidelines for Preparing Horsd'oeuvre	
2.2.1	Cold Horsd O'euvres- Canapes	
2.2.2	Preparation of canapes	
2.2.3	Barquettes, Tratllets and Profiteroles	
2.2.4	Dips	
2.2.5	Exotic Horsd O'euvre	
2.2.6	Serving of Horsd O'euvres	
Unit 3	Cakes, Custards, Creams and Frozen Desserts	10 hours
3.1	Principles of recipe balancing in cake making & bakery	
3.2	Different methods of cake making	

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3.3	Cake making faults & its remedies	
3.4	Preparing a variety of custards and creams	
3.5	Preparation of sorbets and frozen dessert items	
3.6	Meringues- preparation, types and uses	
3.7	Preparation of dessert sauces.	

Food & Beverage Service - IV (Theory)

Objectives of course:-

Objective of course is to study function catering & event management. Students will also know specialized service like Gueridon service and bar operations.

Specific learning outcome:-

On completion of this module- the trainee shall be able to explain –

- Organization, booking procedure & banquet menu, different function & table plans.
- Gueridon service, types of trolley, their advantages & disadvantage, and their ingredients.
- Explain types, areas of bar, bar stock, bar control, staffing & opening & closing duties of bar.
- Methods and recipes of making cocktails

Food & Beverage Service-IV (Theory)		45 hours																								
Unit 1	Function Catering & Event Management	15 hours																								
1.1	Function Catering																									
1.1.1	Introduction																									
1.1.2	Types of functions- convention, seminar, cocktail parties, reception, exhibition, fashion shows, trade fair, wedding																									
1.1.3	Organization of banquet department																									
1.1.4	Function service staff and responsibilities																									
1.1.5	Function sales – sales packages																									
1.1.6	Booking procedure																									
1.1.7	Function Prospectus																									
1.1.8	Considerations when planning an event menu																									
1.2	Banquet and Banquet Protocol																									
1.2.1	Types of banquets – formal, informal and semiformal																									
1.2.2	Banquet Protocols - receiving the guest, seating																									
1.2.3	Food and beverage service for formal banquets																									
1.2.4	Miscellaneous function catering technology:																									
1.2.5	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Air walls</td> <td style="width: 33%;">Consumer show</td> <td style="width: 33%;">Hospitality suites:</td> </tr> <tr> <td>Cash bar</td> <td>Exhibitor Prospectus</td> <td>Island booth</td> </tr> <tr> <td>Corkage</td> <td>Exposition service contractor</td> <td>Peninsula booth</td> </tr> <tr> <td>Guest folio</td> <td>Wedding breakfast</td> <td>Perimeter booth</td> </tr> <tr> <td>Head Count</td> <td>Wedding reception</td> <td>Pipe and drape</td> </tr> <tr> <td>Toasting</td> <td>Guaranteed number</td> <td>Table top exhibits</td> </tr> <tr> <td>Floor load</td> <td>Blanket Gratuities</td> <td>Exhibitors</td> </tr> <tr> <td></td> <td></td> <td>Booth exhibits</td> </tr> </table>	Air walls	Consumer show	Hospitality suites:	Cash bar	Exhibitor Prospectus	Island booth	Corkage	Exposition service contractor	Peninsula booth	Guest folio	Wedding breakfast	Perimeter booth	Head Count	Wedding reception	Pipe and drape	Toasting	Guaranteed number	Table top exhibits	Floor load	Blanket Gratuities	Exhibitors			Booth exhibits	
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Head Count	Wedding reception	Pipe and drape																								
Toasting	Guaranteed number	Table top exhibits																								
Floor load	Blanket Gratuities	Exhibitors																								
		Booth exhibits																								
1.2.6	Function / meeting room set ups – U Shape, auditorium, theatre, hollow square, herringbone set up, board of Directors, T shape set up.																									
1.2.7	Area requirement for various function room set up																									
1.2.8	Outdoor catering- pre preparations for an ODC																									

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Unit 2	Gueridon Service	15 hours
2.1	Introduction	
2.2	Types of trolleys	
2.3	Advantages & disadvantages of Gueridon	
2.4	Gueridon equipment	
2.5	General guidelines for Gueridon service	
2.6	Safety points for Gueridon service	
2.7	Gueridon service - carving, jointing, filleting, flambéing	
2.8	Recipes of dishes prepared on a gueridon – Waldorf salad, Caesar salad, Chicken Stroganoff, Steak Diane, Crepe Suzette, Banana Flambe, Pine Apple Flambé, Irish coffee	
Unit 3	Bar Operations	15 hours
3.1	Types of bars	
3.2	Area of bar - front bar, back bar, under bar, flooring	
3.3	Opening & closing duties of a barman	
3.3.1	Bar service – service of spirits, beer	
3.4	Cocktails And Mocktails	
3.4.1	Introduction	
3.4.2	Methods of making cocktails	
3.4.3	Recipes of popular cocktails–	
3.4.4	Manhattan, Mint, Julep, Old Fashioned , Whiskey Sour, Pink Lady, Tom Collins, Gimlet, Long Island Ice Tea, Brandy Alexander, Planters Punch, White Russian, Cuba Libre, Mojito, Pina Colada, Black Russian, Bloody Mary, Blue Lagoon, Screwdriver, Tequila Sunrise, Margarita	
3.5	Draught beer dispensing systems	

Accommodation & Facility Management –IV (Theory)

Objectives of course:-

Objective of course is to learn room selling techniques, pest control, waste disposal and designing of kitchen.

Specific learning outcome:-

On completion of this module- the trainee shall be able to explain –

- Market demand
- Personal selling
- Recognize customers motive for buying
- Service and service selling
- The Linen and uniform room
- Storage of Linen and uniforms
- Linen exchange procedures.
- Integrated pest management
- Principles of kitchen layout and design
- Features of good kitchen

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Accommodation & Facility Management –IV (Theory)		45 hours
Unit 1	Room selling techniques	15 hours
1.1	Introduction	
1.2	Elements of marketing	
1.3	Marketing strategies	
1.4	Organizational buying behaviours, client behaviour and buying decision	
1.5	Pricing strategies, pricing influence	
1.6	Market demand	
1.7	Personal selling	
1.8	Recognize customers motive for buying	
1.9	Product knowledge	
1.10	Direct conversation to sales lead	
1.11	Understanding what you are selling	
1.12	Features and benefits	
1.13	Close	
1.14	Marketing communication	
1.15	Distribution analysis	
1.16	Targeting the market	
1.17	Front office selling tips	
1.18	Sales and marketing team	
1.19	Sales man's bye laws	
1.20	Service and service selling	
1.21	Code of quality service	
1.22	The service pyramid	
1.23	Market places	
1.24	Planning a sales call	
1.25	Discounts and discount fixation policy	
1.26	Up selling	
1.27	Down sell	
1.28	Substitute selling	
1.29	Complaints are sales opportunities and not threats	
Unit 2	Linen and Uniforms	15 hours
2.1	Linen	
2.1.1	Use of textiles in hotels	
2.1.2	The linen and uniform room, storage of linen	
2.1.3	Linen exchange, par stock, linen control	
2.1.4	Discards and their reuse	
2.2	Uniforms	
2.2.1	Selection and design of uniform	
2.2.2	Establishing par levels for uniforms	
2.2.3	Storage of uniforms	
2.2.4	Issuing and exchanging of uniforms	
2.2.5	Advantages of providing staff uniforms	
Unit 3	Food Production area- Layout & Designing of Kitchen	15 hours
3.1	Introduction	
3.2	Principles of kitchen layout and design	
3.3	Factor that affect kitchen design / basis of physical layout	
3.4	Layout of kitchen	
3.5	Features of good kitchen	
3.6	Care and kitchen configurations/ shapes (types of kitchen layout)	

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3.7	Environmental conditions	
3.8	Developing kitchen plans	
3.9	Exercise on working out different kitchen layout and design based on the data provided	
3.10	Planning for physically challenged	

Cost & Financial Management-IV

Objectives of course:-

Objective of course is to study importance/use of financial statements, need & importance of trading accounts and meaning and need of adjustment entries in final account.

Specific learning outcome:-

On completion of this module- the trainee shall be able to explain –

- Introduction, meaning, definition and objectives of financial statements
- Capital expenditure, revenue expenditure and deferred revenue expenditure
- Performa of trading account
- Meaning, need and importance of profit and loss accounts
- Meaning, need and importance of balance sheet.
- Meaning and need of adjustment entries

Cost & Financial Management-IV (Theory)		30 hours
Unit 1	Financial Statements & its Contents	10 hours
1.1	Financial statements	
1.1.1	Introduction, meaning, definition and objectives of financial statements	
1.1.2	Importance / use of financial statements	
1.2	Expenditure	
1.2.1	Capital expenditure, revenue expenditure and deferred revenue expenditure	
1.2.2	Distinction between capital expenditure, revenue expenditure	
1.3	Receipts	
1.3.1	Distinction between capital receipts, revenue receipts	
1.4	Direct and indirect expenses	
1.4.1	Distinction between direct expenses and indirect expenses	
Unit 2	Financial Statements (without adjustments)	10 hours
2.1	Trading account	
2.1.1	Need and importance of trading accounts	
2.1.2	Performa of trading account: horizontal and vertical	
2.1.3	Debit side of trading accounts	
2.1.4	Credit side of trading accounts	
2.2	Profit and loss account	
2.2.1	Meaning, need and importance of profit and loss accounts	
2.2.2	Explanation of indirect expenses and gains.	
2.2.3	Performa of profit and loss account	
2.2.4	Distinction between trading account and profit and loss account.	
2.3	Balance sheet	
2.3.1	Meaning, need and importance of balance sheet.	
2.3.2	Performa of balance sheet: horizontal and vertical	
2.3.3	Classification of assets and liabilities	

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2.3.4	Treatment of some items in absence of specific information	
2.3.5	Distinction between trading account and balance sheet	
2.3.6	Preparation of final accounts	
2.3.7	Practice of practical problems of final accounts.	
Unit 3	Financial Accounts (With Adjustments)	10 hours
3.1	Adjustment entries	
3.2	Meaning and need of adjustment entries	
3.3	Usual adjustments in final accounts: closing stock, depreciation,	
3.4	bad debts, provisions for discounts, provisions for debtors, provisions for creditors, outstanding expenses, prepaid	
3.5	Expenses, outstanding income, income received in advance Hidden adjustments	
3.6	Additional adjustments	
3.7	Practice of practical problems of final accounts.	

Entrepreneurship Skills:-

Objectives of course:-

Objective of course is to define 'entrepreneur' and list types of entrepreneurs, qualities expected from it and shall illustrate the institutions that promotes entrepreneurship skills in India.

Specific learning outcome:-

On completion of this module- the trainee shall be able to -

- Define 'entrepreneur' and list types of entrepreneurs, qualities expected from it
- Illustrate the institutions that promotes entrepreneurship skills in India.
- Need of motivation for entrepreneurship Development
- Entrepreneurship Training
- Introduction and uses of Business plan
- Refining the plan for Bankers and investors

Entrepreneurship Skills		30 hours
Unit 1	Entrepreneur	10 hours
1.2	Definition, concept and functions of entrepreneur	
1.3	Entrepreneur competencies, characteristics and qualities	
1.4	Nature and Importance of entrepreneurship	
1.5	Classification of entrepreneurs	
Unit 2	Entrepreneurship development	10 hours
2.1	Types of business	
2.2	Need of motivation for entrepreneurship development	
2.3	Maslow's hierarchy of needs theory	
2.4	Entrepreneurship development	
2.5	Entrepreneurship environment	
2.6	Entrepreneurship training	
Unit 3	Making a business plan	10 hours
3.1	Introduction and uses of business plan	
3.2	Writing a business plan	
3.3	Data collection	
3.4	Description of business	
3.5	Management team	
3.6	Market & marketing plan	
3.7	Finance	
3.8	Refining the plan for bankers and investors	

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Theory

SEMESTER –V

NOTE:- Semester V of B.Sc. in Maritime Hospitality Studies is Industrial Training (Practical) so there is not a theory course for this Semester.

Theory

SEMESTER –VI

Maritime Studies-VI

Objectives of course:-

Objective of the course is orientation to SOPEP manual, MARPOL - 73 / 78 and Indian Maritime Law which will cover Marine Insurance, UNCLOS & its principles, territorial waters, contiguous zone & EEZ and pollution damage & compensation.

• Specific learning outcome:-

- On completion of this module the student shall be able to-
- State functions of IMO, ISM codes and define ISPS
- List main points of M.S Act 1958, as implemented on galley staff.
- List the important information of Article of agreement for Indian ships and foreign flag ship.
- SOPEP manual, in compliance with the handout given to student.
- MARPOL - 73 / 78
- Marine Insurance
- UNCLOS & its principles
- Territorial waters, contiguous zone and EEZ
- Pollution damage & compensation

Maritime Studies-VI		45 hours
Unit 1	International Maritime Organization	15 hours
1.1	IMO	
1.2	ILO Convention No. 68, 69	
1.3	ISM Code	
1.4	ISPS	
1.5	Quality Management	
1.6	STCW 2010	
1.7	Port State Control	
1.8	Drug, Alcohol Policy, Health Hazards	
1.9	Implementation of Merchant Shipping (Recruitment and Placement of Seafarers) Rule 2005	
1.9.1	MS Act 1958 <ul style="list-style-type: none">• Overview• Section 95 (registration of recruitment and placement agencies)• Part VII (Employment of seafarers Indian Flag Vessels)	
1.9.2	Recruitment and placement rules, 2005 <ul style="list-style-type: none">• Introduction and definitions	

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1.9.3	<ul style="list-style-type: none"> • Significance of the RPS, Rules, 2005 • Purpose of the rule • Benefit to seafarers under the rule • Responsibilities of employer • Rights and responsibilities of the seafarer • How to access information regarding registered recruitment and placement agencies <p>Article of Agreement (Indian Ships)</p> <ul style="list-style-type: none"> • Lecture on general content of agreement • Responsibilities of employer and seafarer • Discussion on the content 	
1.9.4	<p>Article of Agreement (foreign flag ship)</p> <ul style="list-style-type: none"> • Lecture on general content of agreement • Relevance of RPS, Rule 2005 on foreign ships • Responsibilities of foreign employer & seafarer • Discussion on the content 	
Unit 2	MARPOL - 73 / 78 and Indian Maritime Law	15 hours
2.1	<p>MARPOL - 73 / 78</p> <p>Annexure II Annexure III Annexure IV Annexure V Annexure VI</p>	
2.2	Indian Maritime Law	
2.2.1	Marine Insurance	
2.2.2	UNCLOS & its principles	
2.2.3	Territorial waters, contiguous zone and EEZ	
2.2.4	Pollution damage & compensation	
2.2.5	National Maritime Board Agreement	
2.2.6	General conditions regulating hours of work	
2.2.7	Period of rest	
2.2.8	National Maritime Board Agreements	
2.2.9	Scale of provisions for seamen	
2.2.10	Provident fund	
2.2.11	Personal injury, death	
Unit 3	Shipboard Oil Pollution Emergency Procedures (SOPEP)	15 hours

Advance Food Production-VI

Objectives of course:-

Objective of course is food presentation, planning & kitchen layouts, kitchen organization and management. Influences of the invaders & travelers on Indian Cuisine, points to consider in menu planning for various volume feeding outlets such as industrial, institutional, mobile catering units.

Specific learning outcome:-

On completion of this module the student shall have a thorough knowledge and be able to define/describe/list/illustrate -

- Equipment used in Indian Cooking

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- Regional Influences on Indian Cuisine
- Points to consider in menu planning for various volume feeding outlets such as industrial, institutional, mobile catering units.
- Modern developments in equipment manufacture
- Kitchen organization of star category hotels Vs galley of a first class cruise ships/ Vs galley of a merchant vessel

Advance Food Production		45 hours
Unit 1	Food Presentation, Planning & Kitchen Layouts	15 hours
1.1	Accompaniments & Garnishes	
1.1.1	Food and their usual accompaniments	
1.1.2	Garnishes and its importance	
1.1.3	Basic plate presentation	
1.1.4	Basic platter presentation	
1.1.5	Modern plate garnish	
1.2	Menu Planning	
1.2.1	Basic principles of menu planning – recapitulation	
1.2.2	Institutional and industrial catering <ul style="list-style-type: none"> ➤ Types of institutional and industrial catering ➤ Problems associated with this type of catering ➤ Scope for development and growth 	
1.2.3	Points to consider in menu planning for various volume feeding outlets such as industrial, institutional, mobile catering units.	
1.2.4	Planning menus for <ul style="list-style-type: none"> ➤ School/ college students ➤ Industrial workers ➤ Hospitals ➤ Outdoor parties ➤ Theme dinners ➤ Transport facilities, cruise lines, airlines, railway 	
1.3	Quantity Food Production	
1.3.1	Modern developments in equipment manufacture	
1.3.2	Various sections of kitchens and its layout	
1.3.3	Principles of planning for quantity food production with regard to: <ul style="list-style-type: none"> ➤ Space allocation ➤ Equipment selection ➤ Staffing 	
1.3.4	Hospital catering <ul style="list-style-type: none"> ➤ Highlights of hospital catering for patients, staff, visitors ➤ Diet menu's and nutritional requirements 	
1.4	Main features of transport catering- air, railways and marine.	
Unit 2	Kitchen Organization And Management	15 hours
2.1	Kitchen organization of star category hotels vs galley of a first class cruise ships/ vs galley of a merchant vessel	
2.2	Management of kitchen of star category hotels vs galley of a first class cruise ships/ vs galley of a merchant vessel	
2.3	Maintaining records/reports/log book/sign-on/ sign-off records/approval forms/attendance register/ standard recipe file/accident record/ communication with other department/minutes of meeting	
2.4	Production Management: Production Load, Duty Roasters, Task	

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2.5	Analysis Standardization in production processes- S.O.P's, K.R.A's/ K.P.A's.	
Unit 3	Indian Cuisine	15 hours
3.1	Influences of the Invaders & travelers on Indian cuisine	
3.2	Equipment used in Indian cooking	
3.3	Regional influences on Indian cuisine	
3.4	Cuisine of following states to be discussed of staple diets and popular recipes: <ul style="list-style-type: none"> • Jammu & Kashmir • Punjab • Uttar Pradesh • Avadhi • Bihar • Rajasthan • Maharashtra • Madhya Pradesh • Bengal • North-East States • Andra Pradesh • Hyderabad • Kerala • Karnataka • Gujrat 	
3.5	Concept of dry & wet masalas	
3.6	Pastes used in Indian cooking	
3.7	Regional gravies, preparation of gravies	

Food & Beverage Service-VI

Objectives of course:-

Objective of course is to study planning and operation of various F&B outlets, beverages management and laws governing food service establishment.

Specific learning outcome:-

Candidate will be able to –

- Calculating space requirement for various F&B outlets
- Planning staff requirement for various F&B outlets
- Selecting & planning heavy duty & light equipment
- Beverage Purchasing, Receiving, Storing, Issuing and Production Control
- Licenses and permissions required for Hospitality establishments
- Relevant excerpts of Food Safety Standards act for Catering outlets
- Relevant statutes of Labour laws

Food & Beverage Service-VI		45 hours
Unit 1	Planning and Operating Various F&B Outlets	15 hours
1.1	Aims of good layout	
1.2	Factors to be considered while planning	
1.3	Calculating space requirement	
1.4	Planning staff requirement	

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1.5	Constraints of menu planning	
1.6	Selecting & planning heavy duty & light equipment	
1.7	Materials and finishes for furniture	
1.8	Decor - colour scheme, lighting	
Unit 2	Beverage Management	15 hours
2.1	Beverage purchasing	
2.2	Receiving	
2.2	Storing	
2.3	Issuing	
2.4	Production control	
2.5	Bar frauds	
2.6	Books maintained in the bar	
2.7	Beverage control practices	
2.8	Concept and characteristics of old and new world wines	
2.8.1	Principal wine regions & districts of Italy, Spain, Portugal and Germany	
2.9	Managing ships bond store	
2.9.1	Provision store report	
2.9.2	Calculating victualling account	
Unit 3	Laws Governing Food Service Establishment	15 hours
3.1	Licences and permissions required for hospitality establishments	
3.2	Relevant excerpts of Food Safety Standards act for catering outlets	
3.3	Relevant statutes of labour laws applicable to hospitality industry	
3.4	Alcohol related laws	
3.4.1	Legal drinking age & alcohol permit	
3.4.2	Excise Licenses required for selling alcoholic beverages	
3.5	Wine Classification / laws of popular wine producing countries	
3.6	Scotch whisky regulation – relevant guidelines	
3.7	Scotch whisky regions	

Accommodation & Facility Management-VI

Objectives of course:-

Objective of course is to study night audit, Control of cash and credit, accommodation statistics and yield management. Students will also know daily routines and system, water conservation and wastewater systems and changing trends in Housekeeping.

Specific learning outcome:-

On completion of this module the student shall have a thorough knowledge and be able to define/describe/list/illustrate -

1. Night Audit
2. Cash control
3. Protection of hotel fund
4. Accommodation statistics and yield management
5. The Laundry Process
6. Handling Guest Laundry
7. Water Conservation And Wastewater Systems
8. Waste Management

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Accommodation & Facility Management-VI		45 hours
Unit 1	Night audit	15 hours
1.1.	Control of cash and credit	
1.1.2	Guest with scanty baggage	
1.1.3	Walk-in guest	
1.1.4	Credit facility companies/ corporations	
1.1.5	Credit control during stay	
1.1.6	After departure activities	
1.1.7	Main objectives of the credit control measure	
1.1.8	Cash control	
1.1.9	Protection of hotel fund	
1.2	Accommodation statistics and yield management	
1.2.1	Occupancy ratio	
1.2.2	Break even pricing influence	
1.2.3	Productivity activity	
1.2.4	Report writing	
1.2.5	Yield management	
Unit 2	Daily Routines and System	15 hours
2.1	The housekeeping day	
2.2.	Flower arrangement	
2.2.1	Flower arrangement in hotels	
2.2.2	Flower arrangement basics	
2.2.3	Common flowers and foliage	
2.3	Designing flower arrangements	
2.4	Planning housekeeping operations	
2.4.1	The planning process	
2.5	Laundry operations	
2.5.1	The laundry	
2.5.2	List of laundry equipment	
2.5.3	List of laundry agents or aids	
2.5.4	The laundry process	
2.5.5	Handling guest laundry	
2.5.6	Preparation of hot and cold face towels	
Unit 3	Ecotels	15 hours
3.1	Ecotel certification <ul style="list-style-type: none"> • Choosing an eco-friendly site • Hotel design and construction • Energy conservation 	
3.2	Water conservation and wastewater systems <ul style="list-style-type: none"> • Major water heating concerns and options • Various water system maintenance concerns • Issues associated with swimming pool water systems & swimming pool cleaning • Need for hospitality operations to implement water conservation practices carefully 	
3.3	Waste management <ul style="list-style-type: none"> • Environment-friendly housekeeping 	
3.4	changing trends in housekeeping <ul style="list-style-type: none"> • Hygiene, not just cleanliness • Outsourcing • Training and motivation 	

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	• Eco-friendly amenities, products,	
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Cost & Financial Management-VI

Objectives of course:-

Objective of course is to learn financial management and financial statement analysis, introduction, meaning & categories of sources of finance and meaning, need, importance of capital budgeting with traditional methods & modern methods.

Specific learning outcome:-

On completion of this module the student shall have a thorough knowledge and be able to define/describe/list/illustrate -

- Definition and meaning of business finance
- Definition and meaning of Financial Management
- Types of Finance
- Definition and meaning of Financial Statement
- Types of Financial Statement analysis
- Techniques of Financial Statement analysis
- Comparative & Common size Statement Analysis
- Introduction, Meaning and categories of Sources of Finance
- Securities Finance: Ownership securities and Creditor ship Securities
- Ownership securities
- Meaning, Definition of working Capital
- Concept of working Capital
- Types of working Capital

Cost & Financial Management-VI		45 hours
Unit 1	Financial Management and Financial Statement Analysis	15 hours
1.1	Financial management	
1.1.1	Definition and meaning of business finance	
1.1.2	Definition and meaning of financial management	
1.1.3	Types of finance	
1.1.4	Scope of financial management	
1.1.5	Objectives of financial management	
1.1.6	Functions of financial manager	
1.2.	Financial statement – analysis and interpretation	
1.2.1	Definition and meaning of financial statement	
1.2.2	Types of financial statement analysis	
1.2.3	Techniques of financial statement analysis	
1.2.4	Comparative & common size statement analysis	
1.2.5	Trend analysis	
1.2.6	Introduction of fund flow statement	
1.2.7	Cash flow statement	
1.2.8	Ratio analysis: liquidity ratios, gross profit-net profit-operating & expenses ratios.	
1.2.9		
1.2.10	Difference between funds flow and cash flow statement practice of practical problems financial statement analysis	
Unit 2	Sources of Finance and Capitalization	15 hours
2.1.	Introduction, meaning and categories of sources of finance	
2.2	Securities finance: ownership securities and creditor ship securities Ownership securities: •equity shares • preference shares • no par	

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2.3	stock • deferred shares Creditor ship securities: • debenture	
2.4	Internal finance	
2.5	Introduction of loan financing	
2.6	Capitalization	
2.6.1	Meaning and definition of capitalization	
2.6.2	Types of capitalization: • over capitalization • under capitalization • water capitalization	
Unit 3	Capital Budgeting and Working Capital	15 hours
3.1	Capital Budgeting	
3.1.1	Meaning, need and importance of capital budgeting	
3.1.2	Capital budgeting process	
3.1.3	Methods of capital budgeting: •traditional methods • modern methods	
3.2	Working Capital	
3.2.1	Meaning, definition of working capital	
3.2.2	Concept of working capital	
3.2.3	Types of working capital	
3.2.4	Need of working capital	
3.2.5	Factors determining of working capital	
3.2.6	Computation of working capital	
3.2.7	Practice of practical problems working capital	

Marketing Management

Objectives of course:-

Objective of course is to learn definition scope and need of Marketing, Functions of Marketing, Market Segmentation, Marketing Mix. The travel, tourism industry & gaming industry, Nature of Travel and Tourism Industry, Inter relationships within Travel and Tourism Industry will be part of study. Students will also know What is service, Challenges in Managing and Marketing service businesses and Promotions strategies used in travel and tourism industry.

Specific learning outcome:-

On completion of this module the student shall have a thorough knowledge and be able to define/describe/list/illustrate -

- Definition scope and need of Marketing
- Functions of Marketing
- Market Segmentation
- Marketing Mix
- The travel , tourism industry & gaming industry
- Nature of Travel and Tourism Industry
- Inter relationships within Travel and Tourism Industry
- Why people travel
- Social Impact of Travel
- What is service
- Promotions strategies used in travel and tourism industry.

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Marketing Management		45 hours
Unit 1	Introduction to Marketing	15 hours
1.1.	Definition scope and need of marketing	
1.2	Functions of marketing	
1.3	Market segmentation	
1.4	Analyzing the Market Environment	
1.4.1	Micro environment	
1.4.2	Macro environment - external forces	
1.5	Market research	
1.6	Marketing Mix	
1.6.1	Marketing mix variables	
1.6.2	Factors affecting marketing mix:	
Unit 2	Role of Marketing in Travel & Tourism Industry	15 hours
2.1	The travel , tourism industry & gaming industry	
2.1.2	Nature of travel and tourism industry	
2.1.3	Inter relationships within travel and tourism industry	
2.1.4	Why people travel	
2.1.5	Social impact of travel	
2.1.6	Planning for tourism development	
2.1.7	Gaming in cruise liners	
2.2	Service makes the differences	
2.2.1	What is service	
2.2.2	Challenges in managing and marketing service businesses	
2.2.3	Nature of the product	
2.2.4	Maintaining quality control	
2.2.5	The importance of time	
2.2.6	Achieving superior service in a less than perfect world	
2.2.7	Delivering “on the service” promise	
2.2.8	Keys to delivering good service	
Unit 3	Promotions Strategies& Role of E-Business	15 hours
3.1	Promotions strategies used in travel and tourism industry	
3.1.1	Psychographic research	
3.1.2	Planning promotion strategies	
3.2.1	Types of promotions	
3.3.2	Importance of guest’s feedback.	
3.3.3	Feedback analysis and product development	
3.2	Introduction to e-business	
3.2.1	Domine name and development of website	
3.2.2	Hosting	
3.3	Developing traffic	

Strategic Management

Objectives of course:-

Objective of course is to learn meaning, definition & nature of strategy, organizational mission, meaning & features of business environment, strategy formulation & evaluation and strategy implementation & evaluation.

Specific learning outcome:-

On completion of this module the student shall have a thorough knowledge and be able to define/describe/list/illustrate –

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- Meaning, definition and nature of strategy.
- Process of strategic management: formulation, planning and evolution.
- Benefits of strategic management
- Process of strategic management
- Organizational mission, vision and objectives
- Business environment
- Evaluation of alternative strategies
- Strategic implementation issues and structures
- Methods of strategic evaluation and control

Strategic Management		30 hours
Unit 1	Strategic Management	10 hours
1.1	Introduction of Strategy	
1.1.1	Meaning, definition and nature of strategy.	
1.1.2	Process of strategic management: formulation, planning and evolution.	
1.1.3	Benefits of strategic management	
1.1.4	Process of strategic management	
1.1.5	Types of functional strategies	
1.2	Organizational Mission, Vision and Objectives	
1.2.1	Organizational mission : meaning importance and essentials of mission statement	
1.2.2	Organizational vision : importance	
1.2.3	Organizational objective : importance of objective	
1.3	Business Environment	
1.3.1	Meaning and features of business environment	
1.3.2	Components of environment	
1.3.3	Importance of environmental scanning	
1.3.4	Techniques of environmental analysis	
Unit 2	Strategy Formulation And Evaluation	10 hours
2.1	Strategy (General) alternatives	
2.1.1	Merger strategy	
2.1.2	Acquisition and takeover strategy	
2.1.3	Joint venture strategy	
2.1.4	Diversification strategy	
2.1.5	Turnaround strategy	
2.1.6	Divestment strategy	
2.1.7	Liquidation strategy	
2.2	Evaluation of Alternative Strategies	
2.2.1	Portfolio analysis	
2.2.2	BCG Matrix	
2.2.3	General Electric(GE) Nine Cell Matrix	
2.2.4	SPACE	
2.2.5	TOWS Matrix	
2.3	Strategic Choice	
2.3.1	Strategic choice process	
2.3.2	Factors influencing strategic choice	
Unit 3	Strategy Implementation and Evaluation	10 hours
3.1	Strategic Implementation	
3.1.1	Strategic implementation issues and structures	
3.1.2	Leadership in strategy implementation	

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3.1.3	Leadership in style	
3.1.4	Corporate culture	
3.1.5	Management of strategies and culture	
3.2	Business Ethics	
3.2.1	Definition and features of business ethics	
3.2.2	Importance of business ethics and values	
3.3	Strategic Evaluation and Control	
3.3.1	Definition and nature of strategic evaluation	
3.3.2	Importance of strategic evaluation and control	
3.3.3	Methods of strategic evaluation and control	

Human Resource Management

Objectives of course:-

Objective of course is to study introduction, policies, planning of human resource management, Human Resource Planning (HRP) and selection, training & performance appraisal. They will also study how to motivate employees, auditing and grievance handling of the employees.

Specific learning outcome:-

On completion of this module the student shall have a thorough knowledge and be able to define/describe/list/illustrate –

- Definition of HRM
- Process of HRM
- Changing role of hr management
- Developing hr policies
- Process of hr planning
- Steps in selection procedure
- Meaning & purpose of training
- Definition & purpose of performance appraisal
- Maslow's need hierarchy theory of motivation
- Methods of motivating people
- Objectives of hr accounting & audit
- Definition, features, need & benefits of grievance procedure
- Employees and their unions
- Management need and information system.

Human Resource Management		30 hours
Unit 1	Human Resource Management – Introduction, Policies and Planning	10 hours
1.1	Human Resource Management – an Overview (HRM)	
1.1.1	Definition of HRM	
1.1.2	Features, objectives, importance	
1.1.3	Process of HRM	
1.1.4	HRM as profession	
1.1.5	Changing role of HR management	
1.2	Human Resource Policies	
1.2.1	Meaning of HR policies.	
1.2.2	Developing HR policies	
1.2.3	Need for HR policies	

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1.2.4	Factors influencing HR policies	
1.2.5	Essential characteristics of a sound HR policy	
1.2.6	Principles of HR policies	
1.2.7	Types of HR policies	
1.2.8	Formulation of HR policies	
1.2.9	HR policies - The Indian perspective	
1.3	Human Resource Planning (HRP)	
1.3.1	Introduction to HRP	
1.3.2	Need, nature, advantages & limitations	
1.3.3	HR planning at different levels	
1.3.4	Process of HR planning	
1.3.5	Control & review mechanism of HRP	
1.3.6	Guidelines for making HR planning effective	
1.3.7	Human resource forecast.	
1.3.8	Job analysis	
Unit 2	HRM - Selection, Training and Performance Appraisal	10 hours
2.1	Recruitment & Selection	
2.1.1	Definitions of recruitment & selection	
2.1.2	Sources recruitment	
2.1.3	Recruitment policy	
2.1.4	Steps in selection procedure	
2.1.5	The interview process	
2.1.6	Types of induction program	
2.2	Training & Development	
2.2.1	Meaning & purpose of training	
2.2.2	Importance of training	
2.2.3	Benefits of training to organization	
2.2.4	Benefits of training to employees	
2.2.5	Executive or management development	
2.3	Performance Appraisal	
2.3.1	Objectives of performance appraisal	
2.3.2	Uses of performance appraisal	
2.3.3	Process of performance appraisal	
2.3.4	Essentials of a good appraisal system	
2.3.5	Methods or techniques of performance appraisal	
2.3.6	Definition & purpose of performance appraisal	
Unit 3	HR Accounting and Audit	10 hours
3.1	Definition of Human Resource Accounting (HRA) and audit	
3.1.1	Objectives of HR Accounting & audit	
3.1.2	Limitations of HRA	
3.1.3	Controlling costs of Human Resources	
3.1.4	Need & benefit of HR audit	
3.2	Motivating, Auditing and Grievance Handling	
3.2.1	Definition of motivation	
3.2.2	Importance & benefits	
3.2.3	Types of motivation	
3.2.4	Maslow's need hierarchy theory of motivation	
3.2.5	Requirements of sound motivation system	
3.2.6	Methods of motivating people	
3.2.7	Morale definition & effect of low morale	
3.2.8	Measures to build up high employee morale	
3.3	Grievance Handling and Trade Unions	

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3.3.1	Definition, features, need & benefits of grievance procedure	
3.3.2	Understanding employee grievance	
3.3.3	Grievance procedure	
3.3.4	Grievance management in Indian industry	
3.3.5	Employees and their unions	
3.4	The Human Resource Information System (HRIS)	
3.4.1	Management need and information system	
3.4.2	Objectives of HRIS	
3.4.3	Advantages of HRIS	

Semester wise List of Practical:-

Note:-

- I. Total 60 Students. 30 students batch for each practical with sufficient staff as per guidelines shall be arranged.
- II. Laboratory journal to be submitted at the end of each term for assessment.

Practical

SEMESTER –I

Food Production-I (Practical)

Objectives of course:-

Objective of course is to learn about kitchen equipment, safety, knife handling, cuts of vegetables, stock, sauce, method of cooking, cleaning and fabrication of fish and popular snacks/breakfast items.

Specific learning outcome:-

On completion of this module the student shall have a thorough knowledge and be able to define/describe/list/illustrate -

1. Action required in case of fire, faulty equipment or similar situation.
2. Safety precautions pertaining to use of electrical and mechanical equipments.
3. Knife Handling Skills
4. Cuts of vegetables
5. method of cooking
6. Demonstration of Egg dishes.
7. Orientation of Indian herbs and spices.
8. Concept of baghar in bharta.
9. Concept of binding and deep frying and thickening.
10. 'Dum' techniques
11. Demonstration of stock, soups and sauce and lasing of egg yolk.
12. Concept of 'blanching' and 'baking'.
13. Orientation to herbs used in continental cuisine.
14. Recipe, structure and method/s of making gravy
15. Cleaning and fabrication of fish
16. Stages of heating sugar
17. Discussion of popular Indian snacks/breakfast items
18. Discussion of popular sandwiches
19. Golden rules of making tea/coffee
20. Discussion of popular South Indian snacks/breakfast items
21. Derivatives of dosa/idli, types of chutneys

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22. Discussion of popular pizza toppings, burger stuffing.

23. Popular milk shakes

Food Production-I (Practical)			120 Hours
Activity No.	Menu/ Activity	Remarks/Instructions to Faculty	
	General Instructions: 1. Each student shall be assigned individual work station for practical. 2. There shall be one faculty and one assistant for a batch-size of 30 students. 3. Importance of proper plating techniques to be taught and students should be encouraged to use their imagination for balanced and attractive plating.		
1 (a)	<ul style="list-style-type: none"> • Safety Induction, • Orientation to kitchen equipment 	<ul style="list-style-type: none"> • Action required in case of fire, faulty equipment or similar situation. • Safety precautions pertaining to use of electrical and mechanical equipments. 	
1 (b)	<ul style="list-style-type: none"> • Knife Handling Skills • Cuts of vegetables - Slicing - Chopping - Mincing - Shredding - Chiffonade - Julienne - Paysanne 	<ul style="list-style-type: none"> • Raw vegetables may be used to make simple salads and or sandwiches. 	
2 (a)	<ul style="list-style-type: none"> • Cuts of Vegetables - Brunoise - Batons - Dices (small, medium, large) - Lozenge - Flueting - Jardinière • Simple egg preparations - Boiled Egg (soft & hard) - Poached Egg - Fried Egg (sunny side up, over easy, flipped) - Scrambled Egg - Omelettes (simple, stuffed, open & folded) - French Toast - Oeufs en cocotte 	<ul style="list-style-type: none"> • Sandwiches/ Soft rolls can be served with eggs wherever possible. • Instruct students about basic seasoning, and cooking methods (like boiling, poaching, frying, broiling etc.) During egg preparations. 	
2 (b)	<ul style="list-style-type: none"> • Sambhar • Eggs Curry, Demonstration of-Egg Bhurji, Akoori 	<ul style="list-style-type: none"> • Garam Masala and Sambhar Masala to be pounded fresh during the practical. 	

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	<ul style="list-style-type: none"> • Jeera Rice 	<ul style="list-style-type: none"> • Preparation of rice through draining method to be shown to students for Jeera Rice. 	
3 (a)	<ul style="list-style-type: none"> • Kachumber Salad • Baingan Bharta • Kadhi Pakora • Vegetable Pulao 	<ul style="list-style-type: none"> • Knife skills (fine chopping) should be monitored for salad preparation • Orientation of Indian herbs and spices. • Concept of Baghar in bharta to be explained. • Concept of binding and deep frying (in pakora) and thickening (in Kadhi) to be explained. • Absorption and 'dum' techniques to be shown to students during pulao preparation. 	
3 (b)	<ul style="list-style-type: none"> • Cream of Tomato Soup • Chicken a'la King • Spinach & Corn Augratin • Herb Rice 	<ul style="list-style-type: none"> • Concept of Roux-white and blonde. • Demonstration of white stock and veloute sauce and laisaining of egg yolk. • Demonstration of béchamel sauce. • Concept of 'blanching' and 'baking'. • Orientation to herbs used in continental cuisine. 	
4 (a)	<ul style="list-style-type: none"> • Macchar Jhol • Mix Vegetable Dry • Steamed Rice • Sooji Halwa 	<ul style="list-style-type: none"> • Demonstration of Panchphoran Masala • Mustard Oil and its properties. • Steamed method of cooking 	
4 (b)	<ul style="list-style-type: none"> • Roast Chicken with Roast Gravy • Roast Potatoes • Buttered Vegetables • Bread Rolls 	<ul style="list-style-type: none"> • Ingredients and ratios of making marinade for roasting. • Roast method of cooking to be explained. • Orientation to 'yeast raising', gluten, and temperature of fermentation and baking. 	
5 (a)	<ul style="list-style-type: none"> • Shammi Kebab • Makhani Gravy -Paneer Makhani • Plain Parantha • Rice Kheer 	<ul style="list-style-type: none"> • Theory behind kebabs (kam-aab) • Technique of dhungaar • Methods of making makhani gravy and popular dishes made out of it 	

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5 (b)	<ul style="list-style-type: none"> • Puree of lentil • Fish n Chips (tarter Sauce) • Bread Rolls 	<ul style="list-style-type: none"> • Concept of puree soups • Batter for fried fish • Preparation of Mayonnaise and its popular derivatives. • Correct temperature of oil for frying 	
6 (a)	<ul style="list-style-type: none"> • Masala Gravy - Machi Latpati - Paneer Masaledar • Beans Foogath • Chapatis 	<ul style="list-style-type: none"> • Recipe, structure and method/s of making Masala Gravy/ Onion-tomato gravy/ vegetable gravy or golden gravy • Popular dishes made up of masala gravy. • Cleaning and fabrication of fish 	
6 (b)	<ul style="list-style-type: none"> • Cabbage Chowder • Waldrof Salad • Poached Fish with Hollandaise • Creamed Mushroom • Potato Croquettes 	<ul style="list-style-type: none"> • Orientation to chowders • Poaching technique of fish • Preparation of Hollandaise Sauce 	
7 (a)	<ul style="list-style-type: none"> • Shahi Gravy - Murg Kurma - Navratan Kurma • Saffron Rice • Phulka 	<ul style="list-style-type: none"> • Recipe, structure and method/s of making Shahi gravy • Popular dishes made up of Shahi gravy. • Orientation to 'saffron'. 	
7 (b)	<ul style="list-style-type: none"> • Scotch Broth • Poulet Saute Portuguese • Shepherd's Pie • Parsley Rice • Coffee Mousse 	<ul style="list-style-type: none"> • Preparation of tomato sauce and its popular derivatives • Aeration and thickening in mousse 	
8 (a)	<ul style="list-style-type: none"> • Palak Puree - Murg Saagwala - Subz Miloni • Yakhani Pulao • Tomato Coconut Pulao 	<ul style="list-style-type: none"> • Recipe, structure and method/s of making Palak puree. • Popular dishes made up of Palak puree • Concept of 'yakhani' in Indian cuisine. 	
9 (b)	<ul style="list-style-type: none"> • Cream of Green Peas • Grill Chicken with Barbeque Sauce • Corn & Spinach Augratin • Herb Rice • Caramel Custard 	<ul style="list-style-type: none"> • Marinade for chicken • Blanching and shocking procedure • Stages of heating sugar • Baking in water bath 	
10 (a)	<ul style="list-style-type: none"> • Upma • Poha • Aloo Paratha • Mix Vegetable Raita 	<ul style="list-style-type: none"> • Discussion of popular Indian Snacks/Breakfast items 	

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10 (b)	<ul style="list-style-type: none"> • Sandwiches (veg-non veg) - Plain, Grilled, Toasted • Tea/ coffee 	<ul style="list-style-type: none"> • Discussion of popular sandwiches • Golden rules of making tea/coffee 	
11 (a)	<ul style="list-style-type: none"> • Dosa • Uttapam • Idli • Sambhar/Chutney 	<ul style="list-style-type: none"> • Discussion of popular South Indian Snacks/Breakfast items • Derivatives of Dosa/Idli, types of chutneys 	
11 (b)	<ul style="list-style-type: none"> • Pizzas (veg- non veg) • Burgers (veg- non veg) • Milkshake 	<ul style="list-style-type: none"> • Discussion of popular pizza toppings, burger stuffing. • Popular milk shakes 	

Food & Beverage Service-I (Practical)

Objectives of course:-

Objective of course is to identify cutlery, crockery, glass & hollowware, special F&B equipments. Students will practice napkin folding, cover set up, silver service and clearance.

Specific learning outcome:-

On completion of this module the student shall have a thorough knowledge and be able to :

- Identify cutlery, crockery, glass & hollowware, special F&B equipments.
- Demonstrate - Napkin folding
- Lay & relay of table cloth
- A la carte and table d' hote cover
- Receive guest
- Demonstrate - Silver service and clearance

Sr. No	Food & Beverage Service-I (Practical)	60 Hours
	Total 10 practical are to be carried out from the first semester.	
1	Identification of cutlery and crockery	
2	Identification of glass and hollowware	
3	Identification of special F&B equipments	
4	Napkin folding	
5	Laying & relaying of table cloth	
6	A la carte cover set up	
7	Table d' hote cover set up	
8	Receiving guest	
9	Water service	
10	Practice of silver service and clearance	

Accommodation & Facility Management-I (Practical)

Objectives of course:-

Objective of course is learn about equipment, cleaning agents, linen and uniform use in Accommodation Department and also study bed making and cleaning of occupied guest room.

Specific learning outcome:-

On completion of this module the student shall have a thorough knowledge and be able to define/describe/list/illustrate -

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- Identification cleaning agents, linen and uniform use in accommodation department.
- Arranging room attendant's cart
- Bed making
- Daily cleaning of occupied guest room
- Cleaning bathroom

Sr. No.	Accommodation & Facility Management-I (Practical)	60 Hours
1	Identification equipment	
2	Identification of cleaning agents	
3	Identification of linen	
4	Identification of uniform	
5	Use of mop and wringer trolley	
6	Arranging room attendant's cart	
7	Bed making	
8	Daily cleaning of occupied guest room	
9	Cleaning bathroom	

Practical

SEMESTER –II

Maritime Studies-II (Practical)

Objectives of course:-

Objective of course is to learn about STCW courses directed by International Maritime Organization and familiarization of ship by using audio-visual aids.

Specific learning outcome:-

On completion of this module the student shall have a thorough knowledge and be able to define/describe/list/illustrate -

- Personal Safety & Social Responsibilities
- Personal Survival Technique
- Fire Prevention & Fire Fighting
- Proficiency in Elementary First Aid
- Augmentation Course
- Harbour visit or familiarization of ship by using audio-visual aids.

Sr. No.	Maritime Studies-II (Practical)	60 Hours
1	Personal Safety & Social Responsibilities	
2	Personal Survival Technique	
3	Fire Prevention & Fire Fighting	
4	Proficiency in Elementary First Aid	
5	Augmentation Course	
6	Harbour visit or familiarization of ship by using audio-visual aids.	
	<p>Note: The conduct of STCW courses is strictly carried out as per the guidelines of D.G Shipping; who in turn being directed by International Maritime Organization, these guidelines may be modified/ changed time to time and instructed by D.G Shipping through its training circulars or</p>	

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	<p>as the case may be.</p> <p>As of now, the basic five safety courses/ modules under STCW 2010 may be taken in one go for 14 days and the contact hours allotted to these courses/modules may be allocated to other subjects in weekly time table to make up the loss of classes during these 14 days.</p> <p>As the theory contents of these modules is repetitive, up to 50% of theory hours can also be utilized towards the conduct of these modules. The marks obtained by student during these courses may be averaged out to fit in University of Mumbai examination scheme and shall reflect in II semester mark-sheet.</p> <p>The college may curtail/use vacations/weekly offs, if required, to conduct these courses.</p>	
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Food Production-II (Practical)

Objectives of course:-

Objective of course is to learn basic information of raw material, cooking methods and techniques. Students will also know importance of proper plating techniques and encouraged to use their imagination for balanced and attractive plating.

Specific learning outcome:-

On completion of this module the student shall have a thorough knowledge and be able to define/describe/list/illustrate -

- Importance of famous international soup like mulligatawny, gazpacho, minestrone,
- Discuss the concept of 'plan of work' and importance of colour combination in menu.
- Preparation of vegetable
- Preparation of popular barbeque sauce, raitas, marinade, and use of liaisoning agents
- Orientation to alkanet (rattan jog) and mace, popular edible mushrooms, Goan non-vegetarian preparation, India starters, Punjabi style preparation, yakhani,
- Techniques of making vegetable halwas like carrot, bottle gaud, beetroot etc.
- Discussion of brown stock to brown sauce to demi-glaze and its derivatives.
- Cleaning and fabricating fish for Indian preparation
- Provencale style of cooking.
- Difference in pommes duchess, pommes marquise and pommes william.
- Browning reaction in food (deep frying of bread for shahi –tukra)
- Discuss and demonstrate consommé, shorba,
- Concept of homemade pasta
- Trimming a tenderloin and cutting bones into chops
- Ratios of ingredients in Chinese batters. Stir fried cooking.

Food Production-II (Practical)	120 Hours
<p>General Instructions:</p> <ol style="list-style-type: none"> 1. Each student shall be assigned individual work station. For practical. 2. There shall be one faculty and one assistant for a batch-size of 30 students. 3. Briefing for practical should induct basic information pertaining to raw material, cooking methods, techniques etc as it's covered in 1st semester. 4. Importance of proper plating techniques to be taught of and students should be encouraged to use their imagination for balanced and attractive plating. 	

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Activity No.	Menu/ Activity		
1 (a)	<ul style="list-style-type: none"> • Mulligatwany • Dal Palak • Steamed Rice • Cauliflower & Peas Curry • Chicken Masala • Seviya Kheer 	<ul style="list-style-type: none"> • Importance of Mulligatwany as an International soup • Degree of doneness of cauliflower in north Indian vegetable preparations. • Garnish of Chicken Masala 	
1 (b)	<ul style="list-style-type: none"> • Cream of Spinach • Grill Chicken with Barbeque sauce • Corn & Pineapple au gratin • Herb Rice • Jelly custard. 	<ul style="list-style-type: none"> • Discuss the concept of 'plan of work' i.e sequence to be followed in menu preparation. • Popular versions of Barbeque sauce. 	
2 (a)	<ul style="list-style-type: none"> • Rogini Murg • Dal Makhani • Dum Ka Pulao • Boondi Raita • Gajjar Ka Halwa 	<ul style="list-style-type: none"> • Orientation to Alkanet (rattan jog) and mace. • Procedures of making different raitas. • Techniques of making vegetable halwas (Carrot, Bottle gourd, beetroot etc.) 	
2 (b)	<ul style="list-style-type: none"> • Gazpacho • Poulet Saute avec sauce Robert • Legume aux fine herb • Pineapple Souffle. 	<ul style="list-style-type: none"> • Gazpacho in an International soup. • Marinade for Chicken preparations. • Discussion of brown stock to brown sauce to demi-glaze and its derivatives. • Liaisoning agents in soufflé. 	
3 (a)	<ul style="list-style-type: none"> • Rasam • Goan fish Curry • Cabbage Thoran • Masala Dal • Tomato Pulao 	<ul style="list-style-type: none"> • Cleaning and fabricating fish for Indian preparation. • Orientation to Goan non-vegetarian preparation 	
3 (b)	<ul style="list-style-type: none"> • Potage St. Germaine • Poulet Saute Forestier • Aubergine Provencale • Pommes William • Queen of Pudding. 	<ul style="list-style-type: none"> • Popular Edible Mushrooms • Provencale style of cooking. • Difference in Pommes duchess, pommes marquise and Pommes William. 	
4 (a)	<ul style="list-style-type: none"> • Chana Masala • Khichdi • Boondi Raita • Shahi Tukra 	<ul style="list-style-type: none"> • Test of doneness of chole. • Browning reaction in food (deep frying of bread for Shahi –Tukra) • Explain 'Chandi-verk'. 	

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4 (b)	<ul style="list-style-type: none"> • Consommé • Homemade Pasta with - Bologna Sauce - Napolitana Sauce • Bread Butter Pudding 	<ul style="list-style-type: none"> • Correct procedure of making brown stock. • Discuss and demonstrate at least 5 common garnishes of consommé. • Concept of homemade pasta • Explain 'Al dante' in context to pasta. 	
5 (a)	<ul style="list-style-type: none"> • Subz Badami Shorba • Bombil Fry • Varan • Sukha Aloo • Boiled Rice • Koshimbir 	<ul style="list-style-type: none"> • Concept of Shorba and its main flavoring agents. • Popular Shorba preparations. • Popular Indian fried fish preparations. 	
5 (b)	<ul style="list-style-type: none"> • Cabbage Chowder • Fish finger with Tartar Sauce • Mushy Peas • French Fries • Bread Rolls 	<ul style="list-style-type: none"> • Fried Fish is already prepared by students- ask questions on its preparations. • Test the knowledge of students on soups. 	
6 (a)	<ul style="list-style-type: none"> • Murgh Makai Shorba • Shahi Gravy - Murgh Methi Malai - Birbali Kofte • Plain Rice • Sewaiin Kheer 	<ul style="list-style-type: none"> • Importance of colour combination in Menu. (Ask suggestions from students to make the presentation attractive) • Concept of non veg shorbas. 	
6 (b)	<ul style="list-style-type: none"> • Scotch Broth • Fish Orly • Buttered Squash • Spaghetti with Neapolitan Sauce • Bread Butter Pudding 	<ul style="list-style-type: none"> • Marinade and batter for fish preparations. 	
7 (a)	<ul style="list-style-type: none"> • Samosa Chaat • Kadhai Gravy - Murg Kadhai - Paneer Kadhai • Poori 	<ul style="list-style-type: none"> • Concept of India starters • Difference between masala (vegetable) and Kadhai gravy. 	
7 (b)	<ul style="list-style-type: none"> • Minestrone • Carrot and Raisin Salad • Fish Meuniere with Lemon Butter Sauce • Parsley Potatoes • Haricot Verts • Irish Coffee 	<ul style="list-style-type: none"> • Minestrone as an International soup • Comparison of three traditional fish preparation- fried, orly and meuniere. • Discussion on Irish Coffee. 	

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8 (a)	<ul style="list-style-type: none"> • Pepper Rasam • Fish Moilee • Beans Foogath • Shambar • Curd Rice • Chana Dal • Payassam 	<ul style="list-style-type: none"> • Popular versions of payassam 	
8 (b)	<ul style="list-style-type: none"> • Crab Bisque • Poulet Saute • Chasseur • Ratatouille • Potato Layonnaise • Chocolate Mousse 	<ul style="list-style-type: none"> • Concept of passed and unpassed soups. 	
9 (a)	<ul style="list-style-type: none"> • Lamb Shorba • Mutton Rogan Josh • Khumb Palak • Rajma Rasedar • Boiled Rice 	<ul style="list-style-type: none"> • Test students for their knowledge of preparation of Rogini Murg. • Benchmark for quality of Mutton Rogan Josh. • Discuss Punjabi style preparation method of whole pulses (Chole, Rajma etc) 	
9 (b)	<ul style="list-style-type: none"> • Okra & Tomato Soup • Shepherd's Pie • Corn and Green Pepper Fritters • Pasta Alfredo • Fruit Trifle. 	--	
10 (a)	<ul style="list-style-type: none"> • Lasooni Palak Shorba • Chicken Caldeen • Moong dal with palak • Yakhani Pulao • Mix Vegetable curry • Phirnee 	<ul style="list-style-type: none"> • Concept of coconut extraction. • Preparation of paste for chicken • Concept of 'yakhani' in Indian preparations. 	
10 (b)	<ul style="list-style-type: none"> • Minestrone • Mini Steak/Cottage cheese steak with pepper sauce • Jacket Potatoes • Buttered Vegetables 	<ul style="list-style-type: none"> • Trimming a tenderloin 	
11 (a)	<ul style="list-style-type: none"> • Palak Shorba • Champ Masaledar • Dingri Dulma • Chappatti 	<ul style="list-style-type: none"> • Cutting Bones into Chops 	
11 (b)	<ul style="list-style-type: none"> • Practice Menu 	<ul style="list-style-type: none"> • Revision of menu students find difficult and/or 	

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		<ul style="list-style-type: none"> • Chef Competition and/or • Theme Lunch 	
12 (a)	<ul style="list-style-type: none"> • Chicken Clear Soup • Chicken Sweet n Sour • Vegetables Sweet n Sour • Schezwan Rice • Banana Toffee 	<ul style="list-style-type: none"> • Ratios of Ingredients in Chinese batters. • Stir fried cooking. 	
12 (b)	<ul style="list-style-type: none"> • Practice Menu 	<ul style="list-style-type: none"> • Revision of menu students find difficult and/or • Chef Competition and/or • Theme Lunch 	

Food & Beverage Service-II (Practical)

Objectives of course:-

Objective of course is to learn about english and continental breakfast service, tea / coffee service, room service and restaurant service. They will also study laying of covers and food service for the compiled menu.

Specific learning outcome:-

On completion of this module the student shall have a thorough knowledge and be able to demonstrate -

- Service of English and continental breakfast service.
- Room service
- Tea / coffee service
- High tea service
- Menu compiling
- Laying of covers and food service for the compiled menu
- Order taking, preparing KOT and food service in restaurant.

Sr. No.	Food & Beverage Service-II (Practical)	30 Hours
1	Total 8 practical are to be carried out from the second semester	
2	Breakfast service - English and continental breakfast	
3	Room service	
4	Tea / coffee service	
5	High tea service	
6	Menu compiling	
7	Practice laying of covers for the compiled menu	
8	Food service of the compiled menu	
	Restaurant service- order taking, preparing KOT and food service	
	*Laboratory journal to be submitted at the end of each term for assessment	

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Accommodation & Facility Management-II (Practical)

Objectives of course:-

Objective of course is to study cleaning & servicing of guest room and room inspection procedure.

Specific learning outcome:-

On completion of this module the student shall have a thorough knowledge and be able to define/describe/list/illustrate –

- Daily cleaning and servicing of departure room, vacant room, VIP room, under repair guest room.
- Spring cleaning of room,
- Cleaning of public area
- Cleaning as special projects
- Room inspection procedure

Sr. No.	Accommodation & Facility Management-II (Practical)	30 Hours
1	Daily cleaning of departure guest room	
2	Servicing of vacant guest room	
3	Servicing of VIP guest room	
4	Cleaning of under repair guest room	
5	Cleaning of public area	
6	Spring cleaning of room	
7	Deep cleaning of room and cleaning as special projects	
8	Room inspection procedure (check list)	

Practical

SEMESTER –III

Maritime Studies-III (Shipboard computer applications)-(Practical)

Objectives of course:-

Objective of course is to learn about computer applications on shipboard.

Specific learning outcome:-

On completion of this module the student shall have a thorough knowledge and be able to define/describe/list/illustrate -

- Handling the computer and peripherals.
- Operating system
- Advanced features and document management
- Creating and updating crew list
- Account of wages
- Work done report
- Provision inventory and accounting
- Planned maintenance system, inventory control of spares
- Making use of database to store and retrieve data
- Running a query on the stored data

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Sr. No	Maritime Studies-III (Shipboard computer applications)- (Practical)	45 Hours
	<p>Basic Hardware Familiarization</p> <ul style="list-style-type: none"> • Handling the computer and peripherals • Booting the computer, common start up errors and their remedies. Connecting peripherals – keyboard, mouse, monitor, power cables, UPS to the computer and checking all connections • Keyboard layout and functions of different keys • Proper shut down of PC precautions to avoid an improper shut down • Identifying the different hardware parts in the PC • Determining the configuration of the PC <p>Operating System</p> <ul style="list-style-type: none"> • The Windows Operating System • Handling files and folders • Creating, opening, renaming, and deleting files and folders. • Performing searches for specific files and folders • Using common keyboard shortcuts to speed up operations • Using windows help • Installation / uninstalling of software • Coping and writing of CDs • Using win zip software • Internet and using browser like explorer • Using email application program • Antivirus software's and removal of virus from PC's networks <p>Word</p> <ul style="list-style-type: none"> • Creating and saving documents in Word • Opening, finding, renaming, files and folders • Using page setup, print preview and print commands • Paragraph options, bullets & numbering • Format test using various options in formatting toolbar • Checking spelling & grammar in the document • Using headers & footers • Inserting symbols & pictures • Creating tables in MS Word <p>Excel</p> <ul style="list-style-type: none"> • Creating workbooks, working with rows, columns, cells and worksheets • Inserting pictures, graphics • Formatting of cells • Using conditional formatting on data in cells <p>Advanced Features and Document Management</p> <p>Word</p> <ul style="list-style-type: none"> ▪ Mail Merge, Embedding objects in word ▪ Master the tools to organize, edit, format, and present your content ▪ Create visual impact with pictures, diagrams, tables, 3-d effects, and link charts, tables and 	

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	<ul style="list-style-type: none"> ▪ graphs to live data. Creating hyperlinks to other documents <p>Excel</p> <ul style="list-style-type: none"> • Writing formulas, using logical and trigonometric functions, data sorting and filtering, using fill series, freezing window panes, creating chart and embedding them in excel documents <p>Document Management : Using document Management Software's to scan documents and store in the right files and folders</p> <p>Shipboard applications / databases</p> <p>Shipboard applications</p> <ul style="list-style-type: none"> ▪ Creating and updating crew list ▪ Account of wages ▪ Work done report ▪ Provision inventory and accounting ▪ Planned maintenance system, inventory control of spares <p>Data base</p> <ul style="list-style-type: none"> ▪ Making use of database to store and retrieve data ▪ Running a query on the stored data 	
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Food Production and Patisserie I (Practical)

Objectives of course:-

Objective of course is to study importance of balanced and attractive plating techniques. Students will get orientation towards fabrication of meat items, charcuterie products, breakfast preparations, seafaring nations cooking and common bakery products

Specific learning outcome:-

On completion of this module the student shall have a thorough knowledge and be able to define/describe/list/illustrate -

- Use of secondary seasoning.
- Thickening and binding agent.
- Importance of proper mise-en-place in Chinese cuisine.
- Preparation of pancake in woks and non-stick pans
- Orientation to Charcuterie Products.
- Working in Tandoor
- Introduction to breakfast cooking.
- introduction to Chinese Cuisine, Italian Cuisine, Pilipino Cuisine, Mexican Cuisine, Caribbean Cuisine
- properties of raw material
- different variation of bread
- Preparation of different pastry.

Food Production and Patisserie I (Practical)			180 Hours
Activity No.	Menu/ Activity	Remarks/Instructions to Faculty	
	<p>General Instructions:</p> <p>4. Each student shall be assigned individual work station for practical.</p> <p>5. There shall be one faculty and one assistant for a batch-size of</p>		

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	<p>30 students.</p> <p>6. Importance of proper plating techniques to be taught and students should be encouraged to use their imagination for balanced and attractive plating.</p> <p>7. First 4 Activities are framed to give orientation to students towards fabrication of meat items and Charcuterie products.</p> <p>8. Activity 5 is framed for orientation towards Breakfast preparations.</p> <p>9. Activity 6 onwards is orientation to seafaring nations cooking and common bakery products</p>	
1 (a)	<ul style="list-style-type: none"> • Chicken Manchow Soup • Chilly Chicken • Vegetable Manchurian • Veg Fried Rice • Date Pancake with Ice-cream 	<ul style="list-style-type: none"> • Soya Sauce as secondary seasoning. • SMG- as seasoning • Corn flour as thickening and binding agent. • Preparation of pancake in non-stick pans
1 (b)	<ul style="list-style-type: none"> • Veg Sweet corn Soup • Fish in Black bean Sauce • Stir Fried Vegetables • Veg Hakka Noodles • Crepes with coconut Stuffing 	<ul style="list-style-type: none"> • Importance of proper mise-en-place in Chinese cuisine. • Preparation of pancake in woks.
1 (c)	<ul style="list-style-type: none"> • Chicken Galantine • Chicken Roulade • Liver Pate 	<ul style="list-style-type: none"> • Orientation to Charcuterie Products
2 (a)	<ul style="list-style-type: none"> • Seafood Chowder • Hungarian Goulash • Ratatouille • Herb Rice 	<ul style="list-style-type: none"> • Trimming a Strip Loin
2(b)	<ul style="list-style-type: none"> • Roast lamb with mint sauce • Roast Potatoes • Braised Cabbage • Gin and Lemon Mousse 	<ul style="list-style-type: none"> • Fabrication of Leg of Lamb
2 (c)	<ul style="list-style-type: none"> • Bread Rolls • Bread Sticks 	<ul style="list-style-type: none"> • Properties of raw material • Test for activity of yeast
3(a)	<ul style="list-style-type: none"> • Barbequed spare ribs • Sautéed Brussels sprouts • Glazed carrots • Bread rolls 	<ul style="list-style-type: none"> • Trimming and boning of pork loin/chops
3 (b)	<ul style="list-style-type: none"> • Pies • Croquette • Tak-a-tin • Tawa 	<ul style="list-style-type: none"> • Working with organ meat.
3 (c)	<ul style="list-style-type: none"> • Loaf bread • Brioche • Bran bread 	<ul style="list-style-type: none"> • Different variation of bread
4 (a)	<ul style="list-style-type: none"> • Assorted Kababs • Garlic Naan 	<ul style="list-style-type: none"> • Poultry Fabrication • Working in Tandoor
4 (b)	<ul style="list-style-type: none"> • Seafood bisque 	<ul style="list-style-type: none"> • Fish Fabrication

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	<ul style="list-style-type: none"> • Mix Seafood Grill • Assorted breads 		
4(c)	<ul style="list-style-type: none"> • Muffins • Coffee cakes 	<ul style="list-style-type: none"> • Briefing on popular variation of these products 	
5 (a)	<ul style="list-style-type: none"> • Shirred Eggs with Ham • Frittatas • Porridge, waffles • Assorted Breads/French Toast • Tea 	<ul style="list-style-type: none"> • Introduction to breakfast cooking 	
5(b)	<ul style="list-style-type: none"> • Egg Benedict • Butter milk Pancakes • Oats • Breads • Coffee 	<ul style="list-style-type: none"> • Introduction to breakfast cooking 	
5 (c)	<ul style="list-style-type: none"> • Rye Bread • French Bread • Multigrain bread 		
6 (a)	<ul style="list-style-type: none"> • Sweet corn soup • Chilly Chicken • Stir fry vegetables • Szechwan fried rice • Date pancakes 	<ul style="list-style-type: none"> • Introduction to Chinese Cuisine 	
6 (b)	<ul style="list-style-type: none"> • Vegetable spring rolls • Fish in hot garlic sauce • Vegetables sweet n sour • Hakka noodles • Honey tossed noodles 	<ul style="list-style-type: none"> • Introduction to Chinese Cuisine 	
6 (c)	<ul style="list-style-type: none"> • Focaccia • Assorted pizzas 	<ul style="list-style-type: none"> • Prepare 2 Vegetarian and 2 non-vegetarian toppings 	
7 (a)	<ul style="list-style-type: none"> • Minestrone Ale Milanese • Pollo Alla- Cacciatora • Risotto Con Funghi • Mele Al-forno 	<ul style="list-style-type: none"> • Introduction to Italian Cuisine 	
7 (b)	<ul style="list-style-type: none"> • Insalata de peproni arrostiti • Homemade Ravioli –Bologna sauce • Lasagne Al-forno con Funghi Pomodori 	<ul style="list-style-type: none"> • Introduction to Italian Cuisine • Practice of making stuffed pasta 	
7 (c)	<ul style="list-style-type: none"> • Preparation of Sweet Dough Pastry 	<ul style="list-style-type: none"> • Different variation like Danish and its popular products 	
8 (a)	<ul style="list-style-type: none"> • Rumaki • Beef Ampalaya • Pinakbet • Pandesal 	<ul style="list-style-type: none"> • Introduction to Pilipino Cuisine 	
8 (b)	<ul style="list-style-type: none"> • Bicol express • Chicken Afritada • Adobong gulay 	<ul style="list-style-type: none"> • Introduction to Pilipino Cuisine 	

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	<ul style="list-style-type: none"> • Misua 		
8 (c)	<ul style="list-style-type: none"> • Preparation of Short Crust pastry 	<ul style="list-style-type: none"> • Popular products like cookies, • Preparation of a tart, a flan and a pie. 	
9 (a)	<ul style="list-style-type: none"> • Beef Caldereta • Chicken adobo • Bulanglang • Sinangag 	<ul style="list-style-type: none"> • Introduction to Pilipino Cuisine 	
9 (b)	<ul style="list-style-type: none"> • Chicken pastel in a cup • Beef Mechado • Ginattang Saba • Tofu arroz caldo 	<ul style="list-style-type: none"> • Introduction to Pilipino Cuisine 	
9 (c)	<ul style="list-style-type: none"> • Preparation of laminated pastry 	<ul style="list-style-type: none"> • Popular products like puffs 	
10 (a)	<ul style="list-style-type: none"> • Taco salad • Sopa D'azo • Skewered camarones • Potato donpepe • Chilli corn carne 	<ul style="list-style-type: none"> • Introduction to Mexican Cuisine 	
10 (b)	<ul style="list-style-type: none"> • Nakita • Kenon with gravy • Abolo • Creole rice 	<ul style="list-style-type: none"> • Introduction to Caribbean Cuisine 	
10 (c)	<ul style="list-style-type: none"> • Preparation of hot boiled pastry 	<ul style="list-style-type: none"> • Popular products like Choux pastry based 	
11 (a)	<ul style="list-style-type: none"> • Vegetable/fruits/ice carvings 		
11 (b)	<ul style="list-style-type: none"> • Vegetable/fruits/ice carvings 		
11 (c)	<ul style="list-style-type: none"> • Practice of breads 		
12 (a)	<ul style="list-style-type: none"> • Vegetable/fruits/ice carvings 		
12 (b)	<ul style="list-style-type: none"> • Vegetable/fruits/ice carvings 		
12(c)	<ul style="list-style-type: none"> • Practice of pastries 		

Food & Beverage Service-III (Practical)

Objectives of course:-

Objective of course is to learn service of white wine, red wine, sparkling wine and spirits.

Specific learning outcome:-

On completion of this module the student shall have a thorough knowledge and be able to demonstrate service of -

- White wine
- Red wine
- Sparkling wine
- Spirits
- Beer

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Sr. No	Food & Beverage Service-III (Practical)	60 Hours
1	Service of white wine	
2	Service of red wine	
3	Service of sparkling wine	
4	Service of spirits	
5	Service of Beer	

Practical

SEMESTER –IV

Maritime Studies-IV (Practical)

Objectives of course:-

Objective of course is to familiarization with oil tanker, gas tanker, chemical taker and making aware with Seafarers Public Health Programme and Security Training for Seafarers.

Specific learning outcome:-

On completion of this module the student shall have a thorough knowledge and be able to define/describe/list/illustrate -

- Procedures on Oil Tanker
- Procedures on Gas Tanker
- Procedures on Chemical Taker
- Seafarers Public Health Awareness Programme
- Security Training for Seafarers

	Maritime Studies-IV (Practical)	30 hours
	<ol style="list-style-type: none"> 1. Oil Tanker Familiarization 2. Gas Tanker Familiarization 3. Chemical Taker Familiarization 4. Seafarers Public Health Awareness Programme 5. Awareness on Security Training for Seafarers <p>The conduct of these courses is strictly carried out as per the guidelines of D.G Shipping; who in turn being directed by International Maritime Organization, these guidelines may be modified/ changed time to time and instructed by D.G Shipping through its training circulars or as the case may be.</p> <p>Courses/ modules may be taken in one go (for full day duration) as per specifications and the contact hours allotted to these courses/modules may be allocated to other subjects in weekly time table to make up the loss of classes during these days.</p> <p>The marks obtained by student during these courses may be averaged out to fit in University of Mumbai examination scheme and shall reflect in IV semester mark-sheet.</p> <p>The college may curtail/use vacations/weekly offs, if required, to conduct</p>	

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	<p>these courses.</p> <p>The BOS can take decision on addition /deletion/modification of practical components of semester IV as per D.G Shipping guidance and industry recommendations and instruct the same to colleges conducting this programme.</p>	
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Food Production and Patisserie II (Practical)

Objectives of course:-

Objective of course is to learn Importance of proper plating techniques and students should be encouraged to use their imagination for balanced and attractive plating. They will practice different dishes of seafaring nation's cuisine, bakery and confectionary.

Specific learning outcome:-

On completion of this module the student shall have a thorough knowledge and be able to define/describe/list/illustrate -

- Properties of raw materials used in pasta
- Different cuisines like Cuisine for Thailand, Mediterranean Cuisine, Chinese Cuisine, Japanese Cuisine, Srilankan Cuisine, Indonesian, Korean, Middle Eastern cuisine, Norwegian cuisine, Russian cuisine, and French and European fine dine dishes.
- Look for substitutes for non available food raw items.
- Variations in different categories, choice of breads, spreads, presentation style etc.
- Cake with butter cream
- How to make figures out of icing cream
- Exposure to creaming method
- Exposure to high ratio cakes
- Cake dipped in flat icing and its presentation style.
- Different styles of making meringues
- Demonstration of fondant.

Food Production and Patisserie II (Practical)			180 Hours
Activity No.	Menu/ Activity	Remarks/Instructions to Faculty	
	General Instructions: 1. Each student shall be assigned individual work station for practical. 2. There shall be one faculty and one assistant for a batch-size of 30 students. 3. Importance of proper plating techniques to be taught and students should be encouraged to use their imagination for balanced and attractive plating. 4. For Semester IV activity a and b denotes seafaring nations cuisine and activity c is for bakery and confectionary.		
1 (a)	<ul style="list-style-type: none"> • Assorted homemade pastas with Pesto/ cheese sauce 	<ul style="list-style-type: none"> • Properties of raw materials used in pasta • Concept of al Dante 	
1 (b)	<ul style="list-style-type: none"> • closed, multi-decker s/w (Hot and cold) • Burgers (veg-non veg) 	<ul style="list-style-type: none"> • Variations in different categories, choice of breads, spreads, presentation style etc. 	

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	<ul style="list-style-type: none"> • Canapes 		
1 (c)	<ul style="list-style-type: none"> • Preparation of hot-dogs, burger buns and breads 	<ul style="list-style-type: none"> • Activity 1(c) can be taken a day in advance to 1 (b) for availability of breads 	
2 (a)	<ul style="list-style-type: none"> • Tom Kha Kai • Plathod Krathieum Prik Thai • Phad Phak Bai Krapaw • Kaho Kaeng Dong 	<ul style="list-style-type: none"> • Cuisine for Thailand 	
2(b)	<ul style="list-style-type: none"> • Tom Yom Koong • Panaeng Kai • Phad Hetkap Met Mamaung • Phad Thai 	<ul style="list-style-type: none"> • Cuisine for Thailand 	
2 (c)	<ul style="list-style-type: none"> • American Poundcake • High ratio yellow cake 	<ul style="list-style-type: none"> • Exposure to creaming method • Exposure to high ratio cakes 	
3(a)	<ul style="list-style-type: none"> • Psaro Soupa • Shish Kabab • Moussaka a'la Grecque • Paella a'la Valanciana • Honey Puffs 	<ul style="list-style-type: none"> • Mediterrian Cuisine 	
3 (b)	<ul style="list-style-type: none"> • Gazpacho Soup • Meat with Okra • Dolmas • Veg. Pilaff • Baklava 	<ul style="list-style-type: none"> • Mediterrian Cuisine 	
3 (c)	<ul style="list-style-type: none"> • Orange angel cake • Pineapple upside down cake 		
4 (a)	<ul style="list-style-type: none"> • Wonton Soup • Chicken with black beans sauce • Szechwan Egg Plant • Garlic Noodle • Date pancake 	<ul style="list-style-type: none"> • Chinese Cuisine 	
4 (b)	<ul style="list-style-type: none"> • Chicken Clear Soup • Shredded Beef with Tangerine • Spicy bean curd • Veg. Fried Rice • Caramel Fried Banana 	<ul style="list-style-type: none"> • Chinese Cuisine 	
4(c)	<ul style="list-style-type: none"> • Sponge cake • Butter cream/ cream icing 	<ul style="list-style-type: none"> • Cake with butter cream • How to make figures out of icing cream 	
5 (a)	<ul style="list-style-type: none"> • Ceylon Chicken Curry • Ajap Djache • Idde Appung • Rice 	<ul style="list-style-type: none"> • Srilankan Cuisine 	

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	<ul style="list-style-type: none"> • Kaloo Dodal 		
5(b)	<ul style="list-style-type: none"> • Fish ambul thiyal • Wambatu moju • Parippu • Kottu 	<ul style="list-style-type: none"> • Srilankan Cuisine • Look for substitutes like kokum for goraka. 	
5 (c)	<ul style="list-style-type: none"> • Fruit cake • Flat icing 	<ul style="list-style-type: none"> • Cake dipped in flat icing and its presentation style. 	
6 (a)	<ul style="list-style-type: none"> • Miso Soup with egg • Seafood Tempura • Egg Plant with Sherry sauce • Rolled Sushi • Rice with vegetable 	<ul style="list-style-type: none"> • Japanese Cuisine 	
6 (b)	<ul style="list-style-type: none"> • Cucumber with sesame seeds • Chicken tatsutaage • Kabocha soboroni • Gyudon 	<ul style="list-style-type: none"> • Japanese Cuisine 	
6 (c)	<ul style="list-style-type: none"> • Baked Alaska • Meringues 	<ul style="list-style-type: none"> • Different styles of making meringues 	
7 (a)	<ul style="list-style-type: none"> • Sop Ikan Pedas • Satay Ayan • Tunis Tauge • Nasi Goreng • Pancake Pisang 	<ul style="list-style-type: none"> • Indonesian 	
7 (b)	<ul style="list-style-type: none"> • Kimchi • Daikon Soup • Korean Hot Pot • Namul • Kim Rice 	<ul style="list-style-type: none"> • Korean 	
7 (c)	<ul style="list-style-type: none"> • Preparation of fudge • Crème brulee 		
8 (a)	<ul style="list-style-type: none"> • Hammous al Tahira • Al Sayyard Pot • Lahm Dani • Spinach Fatayer 	<ul style="list-style-type: none"> • Middle Eastern cuisine 	
8 (b)	<ul style="list-style-type: none"> • Baba ghanoush • Turkish Kebabs with pita • Basboosa 	<ul style="list-style-type: none"> • Middle Eastern cuisine 	
8 (c)	<ul style="list-style-type: none"> • Cheese cake • Chocolate Souffle. 		
9 (a)	<ul style="list-style-type: none"> • Spring Soup • Visch Koekjes (Fish) • Alesondigas (Meat) 	<ul style="list-style-type: none"> • Norwegian cuisine 	
9 (b)	<ul style="list-style-type: none"> • Borsch • Russian Salad • Stroganoff • Mushroom Julienne 	<ul style="list-style-type: none"> • Russian cuisine 	

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9 (c)	<ul style="list-style-type: none"> • Fresh fruit Bavarian • Chocolate mousse 		
10 (a)	<ul style="list-style-type: none"> • Barquettes-de-volaille • Consommé ala-juillien • Cote-de-porc Ala-charcutiere • Pommes Duchess • Aborigine Ala-provencale 	<ul style="list-style-type: none"> • French 	
10 (b)	<ul style="list-style-type: none"> • Crusted Pesce ala Aglio Pepperencino • Fussilli ala primavera • Crepes viscania • Garlic breads 	<ul style="list-style-type: none"> • European fine dine 	
10 (c)	<ul style="list-style-type: none"> • Date pudding with butterscotch sauce • Panna cotta 	<ul style="list-style-type: none"> • Concept and other examples of dessert sauce 	
11 (a)	<ul style="list-style-type: none"> • Zuppa de fungi ala menthe • Salade de excelsior • Spaghetti ala agnelo carne sauce • Pollo ala gambroni • Bread rolls 	<ul style="list-style-type: none"> • European fine dine 	
11 (b)	<ul style="list-style-type: none"> • French onion soup • Seafood Caesar salad • Shashlik de fromage ala mexicaina • Pan grilled fish steak • Bread Basket 	<ul style="list-style-type: none"> • European fine dine 	
11 (c)	<ul style="list-style-type: none"> • Rich cake with fondant 	<ul style="list-style-type: none"> • Demonstration of fondant. 	
12 (a)	<ul style="list-style-type: none"> • Revision 		
12 (b)	<ul style="list-style-type: none"> • Revision 		
12(c)	<ul style="list-style-type: none"> • Revision 		

Food & Beverage Service-IV (Practical)

Objectives of course:-

Objective of course is to learn preparation of cocktails, Gueridon service and function catering.

Specific learning outcome:-

On completion of this module the student will be able to demonstrate -

- Preparation of cocktails and mocktails
- Gueridon service of Hors d'oeuvre, main course and desserts
- Table setups and arrangements for Banquets & Buffet

Sr. No	Food & Beverage Service-IV (Practical)	60 Hours
1	Cocktail & Mocktail Demonstration	
2	Gueridon service - Service of food from Gueridon including flambéing	

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3	of Hors d'oeuvre, main course and desserts Function catering: Table setups and arrangements for: Banquets & Buffet	
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Accommodation & Facility Management –IV (Practical)

Objectives of course:-

Objective of course is to learn cleaning of different areas and materials, laundry procedure and different types of flower arrangements.

Specific learning outcome:-

On completion of this module the student shall have a thorough knowledge and be able to define/describe/list/illustrate –

- Cleaning of offices.
- Cleaning of glass, brass and silver article.
- Cleaning of carpet
- Laundry operation
- Flower Arrangement

Sr. No	Accommodation & Facility Management –IV (Practical)	60 Hours
1	Office cleaning	
2	Cleaning & polishing of various floorings.	
3	Glass cleaning	
4	Brass polishing	
5	Silver polishing	
6	Carpet cleaning	
7	Laundry – process & operation	
8	Flower arrangement	
	Note:- Demo of working of property management system and spotting can be arrange for the students.	

Practical

SEMESTER –V

INDUSTRIAL TRAINING

Objectives of course:-

Objective of industrial interface 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.

Specific learning outcome:-

On completion of this module, the student shall have a thorough knowledge and will practice -

- Punctuality
- Grooming
- Work ethics

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- How to motivate
- Team spirit & team work
- Communication skills
- General discipline
- Attitude

Industrial Training

22 Weeks

24 weeks of Industrial Training at any Hotels / Hospitality outlets or off shore installation to be conduct in fifth semester B.Sc.

Objective of industrial interface 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 interface is also expected to provide the students the basis to identify their key operational area of interest.

1. 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 and maintain high standards and quality of work.
- 5 Should interact positively with the organization staff.
- 6 Should be honest and loyal to the organization and towards their training.
- 7 Should get their appraisals signed regularly from the HOD's 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, handover all the reports, appraisals, logbook and completion certificate to the institute.

2. Responsibilities of the Institute

- 1 Should give proper briefing to students prior to the industrial interface
- 2 Should make the students aware of the industry environment and expectations.
- 3 Should coordinate regularly with the Organization especially with the training manager.
- 4 Should take proper feedback from the students after the training.
- 5 Should brief the students about the appraisals, attendance, marks, logbook and training report.
- 6 Should ensure that change of organization is not permitted once the student has been interviewed, selected and has accepted the offer.
- 7 Should ensure trainees procure training completion certificate from the organization before joining institute.

3. Responsibilities of The Hospitality Industry

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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 will 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.

Note : The guide associated with Industrial interface should be of Assistant Manager and above rank of Human Resource / Training or any operational department where candidate is undergoing his / her training.

In case of genuine reason like overseas Industrial Training, Training as per company specific training schedules, Medical reasons etc. principal may consider Industrial Training of minimum 20 weeks duration fit enough for completion of semester.

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CANDIDATE SHALL BE ASSESSED FOR HIS PERFORMANCE DURING HIS INDUSTRIAL TRAINING AS FOLLOWS:

<u>APPRAISAL FORM FOR INDUSTRIAL TRAINING</u>											
CANDIDATE SHALL BE ASSESSED FOR HIS/HER PERFORMANCE DURING INDUSTRIAL TRAINING AS FOLLOWS:											
Appraisal form of Mr. / Ms. _____											
College Name:- _____											
For the period:- From _____ to _____											
	Particulars	Marks									
		50	45	40	35	30	25	20	15	10	Nil
1	Attendance & Punctuality										
2	Personal Traits										
	a) Grooming & work ethics										
	b) Ability to learn & motivation level										
3	Professional Traits										
	a) Team spirit & communication skills										
	b) General discipline & attitude										
Total Marks 250 (Minimum Passing Marks 100)											
Note:- <ul style="list-style-type: none"> Marks in each category shall be awarded out of 45 in 10 point scale. Marks shall be awarded by any senior manager from operations and/or training/ HR Manager based on the performance of candidate. These marks make internal marks component for University of Mumbai semester fifth examination. It is mandatory to put name and Signature of appraiser and seal of organization in the form, else it shall be considered invalid. 											
Comments:-											
Name & Signature of Appraiser						Seal of the Organization					

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Practical

SEMESTER –VI

Quantity Food Production (Indian regional cuisine)

Objectives of course:-

Objective of course is to know how to prepare Indian regional food in quantity.

Specific learning outcome:-

On completion of this module the student shall have a thorough knowledge and be able to prepare food of different regions like Avadh, Tamil Nadu, Punjab, Kerala, Hyderabad, Goa, Rajasthan, Bengal, Maharashtra, Karnataka, Kashmir, Gujarat, Uttar Pradesh, Madhya Pradesh, Bihar, Assam, Meghalaya, Mizoram, Meghalaya, Sikkim, Tripura And Manipur.

Menu No.	Quantity Food Production (Indian regional cuisine)	120 Hours
	ACTIVITY 1 AVADH 1 a) Tomato Shorba b) Murg Wajidali c) Malai Kofta d) Sheermal e) Sevian ka Muzaafar AVADH 2 a) Panna b) Machchli ka Salan c) Paneer Chaman d) Tandoori Roti e) Phirni ACTIVITY 2 TAMILNADU 1 a) Rasam b) Kozhi Chettinad c) Avrakkai Poriyal d) Lemon Rice e) Paal Poli TAMILNADU 2 a) Dosa b) Sambar c) Erha Kari d) Avial e) Masaru Anna f) Kesari Pysam ACTIVITY 3 PUNJABI 1 a) Kaanji b) Makhani Chooze	

- c) Dal Makhni
- d) Kadai Paneer
- e) Tandoori Roti
- f) Kesari Kheer

PUNJABI 2

- a) Aloo Chat
- b) Fish Amratsari
- c) Sarson Ka Saag
- d) Makki ki Roti
- e) Chole Bathure
- f) Gajar Halwa

ACTIVITY 4

KERALA 1

- a) Puli Rasam
- b) Kozhi Varthakari
- c) Kootu
- d) Malabari Paratha
- e) Purupu Pysam

KERALA 2

- a) Appam
- b) Meen Curry
- c) Veg. Stew
- d) Payaru Thoran
- e) Paal Pysam

ACTIVITY 5

HYDERABAD 1

- a) Shammi Kabab
- b) Gosht Banajara
- c) Paneer Pasanda
- d) Saffron PULao
- e) Qubhani ka Meetha

HYDERABAD 2

- a) Chappali Kabab
- b) Murg Zaffrani
- c) Baghare Baingan
- d) Bakarkhani
- e) Sahi Tukra

ACTIVITY 6

GOA 1

- a) Amboti Saar
- b) Goan Fish Curry
- c) Prawn Balchao
- d) Cabbage Foogath
- e) Rice
- f) Dodal

GOA 2

- a) Chicken Cafareal
- b) Pork Vindaloo
- c) Vegetable Caldien
- d) Sanna
- e) Dosh

ACTIVITY 7

RAJASTHAN 1

- a) Machchli ka soola
- b) Murg ke Boothe
- c) Paneer Mircha
- d) Phulka
- e) Rice
- f) Jalebi

RAJASTHAN 2

- a) Mahi Kabab
- b) Lal Maans
- c) Gatte ka Saag
- d) Pulka
- e) Rice

ACTIVITY 8

BANGALI 1

- a) Nimki
- b) Kosha mangsho
- c) Ghughi
- d) Lucchi
- e) Rice

BANGALI 2

- a) Macher Jhol
- b) Potler Dalma
- c) Cholar Dal
- d) Rice
- e) Rasgulla

ACTIVITY 9

MAHARASHTRA 1

- a) Kokam Saar
- b) Mutton Kolhapuri
- c) Kothambir Vadi Rasa
- d) Thali Pith
- e) Shreekhand

MAHARASHTRA 2

- a) Koshimbir
- b) Kombi Chacooty
- c) Matki Chi Usal
- d) Amti
- e) Pooran Poli

ACTIVITY 10

KARNATAKA 1

- a) Kuduta Saar
- b) Kozhi Curry
- c) Kai Kajpu
- d) Rice
- e) Chiroti

KARNATAKA 2

- a) Tomato Saar
- b) Kori Gassi
- c) Masuru Anna
- d) Masala Badane Kayi
- e) Mysoor Pak

ACTIVITY 11

KASHMIR 1

- a) Kashmiri Shorba
- b) Mutton Roganjosh
- c) Navratan Khorma
- d) Kashmiri Pulao
- e) Shufta

KASHMIR 2

- a) Mint Shorba
- b) Murgh Dhaniwal Korma
- c) Dum Aloo Kashmiri
- d) Saffron Pulao

ACTIVITY 12

GUJRAT 1

- a) Patra
- b) Flower and Tamata Shak
- c) Undio
- d) Theplas
- e) Doodha Pak

GUJRAT 2

- a) Dhokla
- b) Vaigan Shak
- c) Gujrathi Kadhi
- d) Poori
- e) Amrakhand

ACTIVITY 13

Uttar Pradesh

- a) Mutton Kofta
- b) Bindi Ka Salan
- c) Arhar Ki Daal
- d) Allahabad Ki Tehri
- e) Doodhi Halwa

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<p>Madhya Pradesh</p> <ul style="list-style-type: none">a) Papad Ki Sabzib) Bhopali Gosht Kormac) Sabudana Khichdid) Dal Baflae) Palak Puri <p>ACTIVITY 14</p> <p>Andra Pradesh</p> <ul style="list-style-type: none">a) Andhra Pepper Chickenb) Gutti Vankaya Kurac) Pesarattud) Boorelu <p>Bihar</p> <ul style="list-style-type: none">a) Litti Chokhab) Chana Ghugnic) Dal Purid) Khajuria <p>ACTIVITY 15</p> <p>Cuisine from north-east states</p> <p>Menu 1</p> <ul style="list-style-type: none">a) Tenga (Assam)b) Jadoh (Meghalaya)c) Bai (Mizoram)d) Egg Daal (Meghalaya)e) Boiled Rice <p>Menu 2</p> <ul style="list-style-type: none">a) Thupka (Sikkim)b) Misa Mach Poora (Meghalaya)c) Awan Bangwi (Tripura)d) Aloo Kangmet (Manipur)e) Rice	
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Project:-

Objectives of course:-

Objective of course is to study types of project, project approaches, criteria of good research, project design & methods of data collection, report presentation technique and submission of project on time.

Specific learning outcome:-

On completion of this module the student shall have a thorough knowledge and be able to define/describe/list/illustrate -

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1. Meaning and objectives of project
2. Types of project
3. Project approaches
4. Criteria of good research
5. Problem faced by researches
6. Meaning and need for project design
7. Features and important concept relating to project design
8. Methods of Data Collection
9. Compilation of report
10. Presenting the report
11. Group Discussion

Unit	Project	45 hours
	Candidates have to submit a Project in any of the core subject under the guidance of any faculty; the project shall be based on research methodology taught in the theory class to prepare students on how to approach the subject of Research Project. Inputs can be given to the students during the institute tenure.	
Unit 1	Introduction to project writing	
1.1	Meaning and objectives of project	
1.2	Types of project	
1.3	Project approaches	
1.4	Criteria of good research	
1.5	Problem faced by researches	
1.6	Pictorial representation and interpretations	
Unit 2	Project design & methods of data collection	
2.1	Project Design	
2.1.1	Meaning and need for project design	
2.1.2	Features and important concept relating to project design	
2.1.3	Different project design	
2.1.4	Important experimental designs	
2.2	Methods of Data Collection	
2.2.1	Collection of primary data	
2.2.2	Different methods to collect secondary data	
Unit 3	Report presentation technique	
3.1	Compilation of report	
3.2	Presenting the report	
3.3	Group discussion	
3.4	Submission of project	

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1. Question Paper Pattern:-

Faculty of Science (Undergraduate Programmes)

Scheme of Examination -

The performance of the learners shall be evaluated into two components. The learners Performance shall be assessed by Internal Assessment with 25% marks in the first component by conducting the Semester End Examinations with 75% marks in the second component. The allocation of marks for the Internal Assessment and Semester End Examinations are as shown below:-

Internal Assessment -

Internal Assessment - 25%

25 marks.

Duration - These examinations shall be of an hour duration.

1 Hr.

a) Theory

25 marks

Sr. No	Evaluation type	Marks
1	One class Test*	20
2	Active participation in routine class instructional deliveries Overall conduct as a responsible student, manners, skill in articulation, leadership qualities demonstrated through organizing co-curricular activities, etc.	05

b) Note:- As per previous ordinance there will not be any internal examination for practical.

Semester End Examination –

Undergraduate Programmes of F. Y. B. Sc MHS, S. Y. B. Sc MHS and T. Y. B. Sc MHS.

Semester End Theory Assessment - 75%

75 marks

1. **Duration** - These examinations shall be of 2.5 hours duration.

2. **Theory question paper pattern :-**

- i. There shall be five questions. All questions will be of 15 marks.
- ii. On each unit, there will be one question.
- iii. First & fourth question will be based on entire syllabus.
- iv. All questions shall be compulsory. Question No Two, Three and Four will be with internal choice within the questions (30 marks with internal options).
- v. Questions may be sub divided into sub questions as a, b, c, d & e, etc & the allocation of marks depends on the importance or weight age of the topic.

3. Passing Standard:-

“Passes” means minimum grade ‘D’ or above in 10 point scale

“Fails” means grade ‘F’ in 10 point scale

The learners to pass a course shall have to obtain a minimum of 40% marks in aggregate for each course where the course consists of Internal Assessment and Semester End Examination. The learners shall obtain minimum of 40% marks (i.e. 10 out of 25) in the Internal Assessment and 40% marks in Semester End Examination (i.e. 30 out of 75) separately, to pass the course and minimum of Grade D in each course, wherever applicable, to pass a particular semester. A learner will be said to have passed the course if the learner passes the Internal Assessment and Semester End Examination together.

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Performance grading:-

The performance grading of a learner shall be on the ten point ranking system as under:

Marks	Grade Points	Grade	Performance
80 & Above	10	O	Outstanding
70 to 79.99	9	A+	Excellent
60 to 69.99	8	A	Very Good
55 to 59.99	7	B+	Good
50 to 54.99	6	B	Above Average
45 to 49.99	5	C	Average
40 to 44.99	4	D	Pass
39.99 & below	0	F (Fail/Unsatisfactory)	Fail

The performance grading shall be based on the aggregate performance of internal assessment and semester end examination.

Note:-

Question Paper Pattern for Periodical Class Test for Courses at UG Programmes.

Written Class Test

(20 Marks)

Q. No		Marks
1	Define / Terminologies / Match the Column / Fill in the Blanks / Multiple Choice Questions (½ Marks each)	05 Marks
2	Answer in One or Two Lines (Concept based Questions) (1 Mark each)	05 Marks
3	Answer in Brief (Attempt Any Two of the Three) (5 Marks each)	10 Marks

Note:- As per previous ordinance there will not be any internal examination for practical.

Question Paper Pattern for Semester End Examination for Courses at UG Programmes

Semester End Examination

(75 Marks)

Q. No	Sub Q No		Marks
1	a, b, c,	Define / Terminologies / Match the Column / Fill in the Blanks / Multiple Choice Questions (1 Marks each)	15 Marks
2		Attempt Any Three Questions out of the Six. (5 Marks each)	15 Marks
3		Attempt Any Three Questions out of the Six. (5 Marks each)	15 Marks
4		Attempt Any Three Questions out of the Six. (5 Marks each)	15 Marks
5		Attempt Any Three Questions out of the four (5 Marks each)	15 Marks

Note – It is noted that the amended regulation 8435 is to be implemented to all Semesters i.e. Semester I to Semester VI to all Undergraduate programmes, simultaneously, under faculty of Arts, Commerce and Science from the academic year 2014 – 2015 or issued time to time by University of Mumbai.

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CARRY FORWARDS OF MARKS IN CASE OF A LEARNER WHO FAILS IN THE INTERNAL ASSESSMENT AND/OR SEMESTER END ASSESSMENT IN ONE OR MORE SUBJECTS:

A) INTERNAL ASSESSMENT:

Eligibility norms to appear for the additional class test or assignment for learners who remained absent:

- a) The learner must apply to the Head of the Institution giving the reason(s) for absence within 8 days of the conduct of the examination along with the necessary documents and testimonials.
- b) If the learner is absent for participation in Inter Collegiate events, State or National or International level events, Training camp or coaching camp organized by authorized university or state or national or international bodies, NSS / NCC Events / Camps / cultural activities / sports activities / research festival or any other activities authenticated by the head of the institution, the head of the Institution shall generally grant permission to the learner to appear for the additional class test or assignment.
- c) The Head of the Institution, on scrutiny of the documents and testimonials, may grant the permission to the learner to appear for the additional examination.

1) A learner who PASSES in the Internal Examination but FAILS in the Semester End Examination of the course shall reappear for the Semester End Examination of that course. However his/her marks of the Internal Examinations shall be carried over and he/she shall be entitled for grade obtained by him/her on passing.

2) A learner who PASSES in the Semester End Examination but FAILS in the Internal Assessment of the course shall reappear for the Internal Examination of that course. However his/her marks of the Semester End Examination shall be carried over and he/she shall be entitled for grade obtained by him/her on passing.

3) For Courses with or without practical's In case of a learner who is reappearing for the Internal Examination, the examination will consist of one project on a topic given by the concerned subject teacher of 25 marks which will be divided into 15 marks for the project work, 05 marks for the presentation and 05 marks for the viva and the interaction.

4) The Additional Class Test must be conducted 15 days prior to the commencement of the Semester End Examination after following the necessary procedure and completing the formalities.

B) SEMESTER END EXAMINATIONS

Regulation 8438

Eligibility for admission to Semester V (Third year) of UG programs (aided and non-aided) in Faculty of Science is amended as follows -

Learner shall have passed Semester I, II, III and IV in full

OR

Learner shall have passed Semester I and Semester II in full and secured ATKT in Second Year by failing in

For programs with 900 and above marks in not more than Three Courses in each of Semester III and IV

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For programs with less than 900 marks in not more than Three Courses with not more than total 200 marks in each of Semester III & IV

OR

Learner shall have passed Semester III and Semester IV in full and secured ATKT in First Year by failing in,

For programs with 900 and above marks in not more than Three Courses in each of Semester I and II

For programs with less than 900 marks in not more than Three Courses with not more than total 200 marks in each of Semester I & II.

A learner shall be allowed to keep terms for Semester VI irrespective of grades obtained in each course of Semester V.

The result of Semester VI shall be kept in abeyance until the learner passes each of Semester I, Semester II, Semester III, Semester IV and Semester V in full.

ADDITIONAL EXAMINATION

ELIGIBILITY TO APPEAR FOR ADDITIONAL SEMESTER END EXAMINATION:

A learner who does not appear i.e. remains absent in some or all the courses on medical grounds or for representing the college / university in sports, cultural activities, activities of NSS, NCC or sports training camps conducted by recognized bodies / competent authorities or for any other reason which is considered valid under exceptional circumstances and to the satisfaction of the Principal or the Head of the Institute OR fails in some or all the subjects is eligible to appear for the additional examination.

A learner who does not appear for both the Internal Assessment and Semester End Examination shall not be eligible to appear for the additional Semester End Examination. The additional Semester End Examination shall be of two and half hours duration and of 75 marks per course. The learner shall appear for the course of the Semester End Examination for which he/she was absent or has failed. Learners who are punished under O.5050 are not eligible to appear for this additional examination.

Regulation. 8439

(with effect from 2013-14)

Additional Examination for Semester I and Semester II be held after the conduct of Semester II Examination in March/ April every year and Additional Examination for Semester III and Semester IV be held after the conduct of Semester IV Examination in March / April every year. However, Additional Examination for Semester II and Semester IV be held after 20 days and before 40 days from the date of declaration of result of the respective Semester End Examination.

Grade Improvement:-

For improvement of grade in CBGS System, students of under graduate shall reappear for examination of any two semester end examination. (C UG/09/2016-17)

Gracing:-

The gracing shall be carried out as per existing ordinances of the University in force.

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Grace marks for sports and NSS:- In the case of credit based grading system(CBGS) the (0.1) will be added in the final grade to the GPA. However, if the benefit is given to for passing the subjects the same may be proportionately deducted from the total grade point (0.1) shall be deducted from final grade, for every one mark given for passing the subjects.

Examination for Ex-student:-

Learner's who are declared failed in one or more courses on account of failure at the Internal Assessment and/or Semester End Examinations or who have been allowed to keep terms for the higher class shall appear as ex-student for the Internal Assessment and/or the Semester End Examination in the failed course at the examinations held by their respective college. Examination for the ex-students will be held at least 15 days prior to the Semester End Examination of the next Semester as per the pattern of the course in the respective (failed) semester exam.

2. Pattern of Practical Exam:-

Note:- Total 60 Students. 30 students batch for each practical with sufficient staff as per guidelines shall be arranged.

Practical

SEMESTER –I

Food Production-I (Practical):-

Scheme of Examination: (100 marks)

- Candidate will be given a menu comprising of 4 dishes.
- Indent sheet and plan of work sheet to be filled by the candidate of the menu he gets.
- He / she supposed to collect indents, prepare and present the dishes in the menu within stipulated time.
- Cleaning and securing equipments and working area is also to be done within stipulated time.
- Assessment will be done as follows –

Journal	Indent Sheet & plan of work	Colour	Consistency	Taste	Texture	Viva-voce	Personal Grooming, Cleaning & Securing
10	8	16	16	16	16	10	8

Food & Beverage Service-I (Practical):-

Scheme of Examination (Practical)

Semester end assessment - 100 marks

- Assessment will be done as follows

Journal	Grooming	Identification of cutlery / crockery/ glass ware / hollow ware	Cover laying	Service Activity	Viva -voce
10	10	20	20	20	20

Accommodation & Facility Management-I (Practical):-

Semester end assessment - 100 marks

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- A candidate will be given a 2 activities room cleaning and special cleaning of any surface or area.
- Assessment will be done as follows -

Journal	Grooming	Work sheet	Activity One	Activity Two	Viva-Voce
20	10	10	20	20	20

Practical

SEMESTER –II

Maritime Studies-II (Practical):-

	Maritime Studies-II (Practical)	60 Hours
	<ol style="list-style-type: none"> 1. Personal Safety & Social Responsibilities 2. Personal Survival Technique 3. Fire Prevention & Fire Fighting 4. Proficiency in Elementary First Aid 5. Augmentation Course 6. Harbour visit or familiarization of ship by using audio-visual aids. <p>Note: The conduct of STCW courses is strictly carried out as per the guidelines of D.G Shipping; who in turn being directed by International Maritime Organization, these guidelines may be modified/ changed time to time and instructed by D.G Shipping through its training circulars or as the case may be.</p> <p>As of now, the basic five safety courses/ modules under STCW 2010 may be taken in one go for 14 days and the contact hours allotted to these courses/modules may be allocated to other subjects in weekly time table to make up the loss of classes during these 14 days.</p> <p>As the theory contents of these modules is repetitive, up to 50% of theory hours can also be utilized towards the conduct of these modules.</p> <p>The marks obtained by student during these courses may be averaged out to fit in University of Mumbai examination scheme and shall reflect in II semester mark-sheet.</p> <p>The college may curtail/use vacations/weekly offs, if required, to conduct these courses.</p>	

Food Production-II (Practical):-

Scheme of Examination: (100 marks)

- Candidate will be given a menu comprising of 4 dishes.
- Indent sheet and plan of work sheet to be filled by the candidate of the menu he gets.
- He / she supposed to collect indents, prepare and present the dishes in the menu within stipulated time.
- Cleaning and securing equipments and working area is also to be done within stipulated time.
- Assessment will be done as follows –

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Journal	Indent Sheet & plan of work	Colour	Consistency	Taste	Texture	Viva-voce	Personal Grooming, Cleaning & Securing
10	8	16	16	16	16	10	8

Food & Beverage Service-II (Practical):-

Scheme of Examination (Practical)

Semester end assessment - 100 marks

- A candidate will be given a menu to compile and laying table for it.
- Assessment will be done as follows
- Laboratory journal to be submitted at the end of each term for assessment.

Journal	Grooming	Menu Planning	Cover laying	F&B Service	Viva –voce
10	10	20	20	20	20

Accommodation & Facility Management-II (Practical):-

Semester end assessment - 100 marks

- A candidate will be given a 2 activities room cleaning and special cleaning of any surface or area.
- Assessment will be done as follows -

Journal	Grooming	Work sheet	Activity One	Activity Two	Viva-Voce
20	10	10	20	20	20

Practical

Semester –III

Maritime Studies-III (Shipboard computer applications)-(Practical):-

Conduct of Practical Examination (100 marks)

- Assessment will be done as follows –

Journal	Online Examination	Viva – Voce
10	80	10

Food Production and Patisserie -I (Practical):-

Scheme of Examination: (100 marks)

- Candidate will be given a menu comprising of 5 dishes/ products (main course and bakery & confectionary).
- Indent sheet and plan of work sheet to be filled by the candidate of the menu he gets.
- He / she supposed to collect indents, prepare and present the dishes in the menu within stipulated time.
- Cleaning and securing equipments and working area is also to be done within stipulated time.
- Assessment will be done as follows –

Journal, Indent Sheet & plan of work	Colour	Consistency	Taste	Texture	Viva-voce, Personal Grooming, Cleaning & Securing
10	20	20	20	20	10

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Food & Beverage Service-III (Practical):-

Conduct of Practical Examination (100 marks)

- Assessment will be done as follows –

Journal	Personal Grooming	Work Sheets	Activity 1	Activity 2	Viva – Voce
10	10	20	20	20	20

Practical

SEMESTER –IV

Maritime Studies-IV (Practical):-

Conduct of Practical Examination (100 marks)

- Assessment will be done as follows –

	Maritime Studies-IV (Practical)	30 hours
	<ol style="list-style-type: none"> 1. Oil Tanker Familiarization 2. Gas Tanker Familiarization 3. Chemical Tanker Familiarization 4. Seafarers Public Health Awareness Programme 5. Awareness on Security Training for Seafarers <p>The conduct of these courses is strictly carried out as per the guidelines of D.G Shipping; who in turn being directed by International Maritime Organization, these guidelines may be modified/ changed time to time and instructed by D.G Shipping through its training circulars or as the case may be.</p> <p>Courses/ modules may be taken in one go (for full day duration) as per specifications and the contact hours allotted to these courses/modules may be allocated to other subjects in weekly time table to make up the loss of classes during these days.</p> <p>The marks obtained by student during these courses may be averaged out to fit in University of Mumbai examination scheme and shall reflect in II semester mark-sheet.</p> <p>The college may curtail/use vacations/weekly offs, if required, to conduct these courses.</p> <p>The BOS can take decision on addition /deletion/modification of practical components of semester IV as per D.G Shipping guidance and industry recommendations and instruct the same to colleges conducting this programme.</p>	

Food Production and Patisserie - II (Practical):-

Scheme of Examination: (100 marks)

- Candidate will be given a menu comprising of 5 dishes/ products (main course and bakery & confectionary).
- Indent sheet and plan of work sheet to be filled by the candidate of the menu he gets.
- He / she supposed to collect indents, prepare and present the dishes in the menu within stipulated time.
- Cleaning and securing equipments and working area is also to be done within stipulated time.

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- Assessment will be done as follows –

Journal, Indent Sheet & plan of work	Colour	Consistency	Taste	Texture	Viva-voce, Personal Grooming, Cleaning & Securing
10	20	20	20	20	10

Food & Beverage Service-IV (Practical):- Conduct of Practical (100 marks)

- Assessment will be done as follows –

Journal	Personal Grooming	Work Sheets	Activity 1	Activity 2	Viva - Voce
10	10	20	20	20	20

Accommodation & Facility Management –IV (Practical):- Semester end assessment - 100 marks

- A candidate shall be given any two activities based on curriculum
- Assessment will be done as follows -

Journal	Grooming	Work sheet	Activity One	Activity Two	Viva-Voce
20	10	10	20	20	20

Practical

SEMESTER –V

Industrial Training:- Semester end assessment - 750 marks

Industrial Training (22 Weeks)

22 weeks of Industrial Training at any Hotels / Hospitality outlets or off shore installation to be conduct in fifth semester B. Sc. Maritime Hospitality Studies.

Objective of industrial interface 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 interface is also expected to provide the students the basis to identify their key operational area of interest.

The guide associated with Industrial interface should be of Assistant Manager and above rank of Human Resource / Training or any operational department where candidate is undergoing his / her training.

In case of genuine reason like overseas Industrial Training, Training as per company specific training schedules, Medical reasons etc. principal may consider Industrial Training of minimum 20 weeks duration fit enough for completion of semester.

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INDUSTRIAL TRAINING – External Exam

Sr. No.	Name of Students	External Marks			
		Log Book	Training Report	Viva – Voce & Presentation	Sub Total (Minimum Passing 300)
		(250)	(250)	(250)	(750)

Practical

SEMESTER –VI

Quantity Food Production (Indian regional cuisine):-

Semester end assessment - 100 marks

- Since semester VI is bulk cooking- one group of students shall prepare one dish/menu in bulk
- Group size and dish /menu shall be decided by the H.O.D and Principal.
- The practical can be conducted in two sessions (30 students per session)
- Indent sheet and plan of work sheet to be filled individually by the candidate.
- Cleaning and securing equipments and working area is also to be done within stipulated time.
- Assessment will be done as follows –

Journal	Indent Sheet & plan of work	Colour	Consistency	Taste	Texture	Viva-voce	Personal Grooming, Cleaning & Securing
Individual activity	Individual activity	Group Activity	Group Activity	Group Activity	Group Activity	Individual activity	Individual activity
10	8	16	16	16	16	8	10

3. Scheme of Evaluation of Project / Internship:-

PROJECT:-

NOTE: Classes for unit 1, 2 & 3 shall be conducted at the beginning of the academic year only and after that student will be given time to make their projects.

Candidate is required to submit his/her project report in duplicate one month prior to final examinations. One copy will be kept with the college for future references/ guidelines.

Conduct of Practical Examination

Semester end assessment - 100 marks

Assessment will be done as follows –

Project Report (Timely submission and quality of report)	Presentation	Group Discussion	Viva voce	Importance of choice of topic in professional sense/thought process, authenticity of data and assumption.
20	20	20	20	20

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Evaluation of Projects (Where ever Applicable)

i) A learner who passes in all the theory papers but does not secure minimum grade 'D' in project as applicable has to resubmit a fresh project till he/she secures a minimum grade 'D'. His/her marks and/or grades in the theory papers that the learner has passed will be carried forward but he/she shall be entitled for grade "D" on passing.

ii) The evaluation of project and viva'voce examination shall be by awarding grade in the ten point scale as given above.

iii) A learner shall have to obtain minimum of grade 'D' (or its equivalent marks) in project evaluation and viva/voce taken together. i.e. 40% marks in project work.

Subject where there are more than one papers/courses, the credits and grade will be awarded only when he/she obtains grade 'D' or above in ten point scale in each of the paper/course.

The course in which grade 'D' or above is obtained, the credits of that course will be carried forward and will be put in credit bank till he/she gets grade 'D' or above in papers/paper in which learner has failed to get minimum grade 'D'.

4. List of Suggested Reading:-

Maritime Studies:-

Reference Books:-

- 1) Practical knots and rope works, Blandford, Percy, W. Tab books Inc
- 2) Safety and Survival at Sea, 1980, LEE, ECB & Others, New York, WW Norton and co.
- 3) Model course crowd management, IMO, London
- 4) Solas, 2001, Consolidated edition, Mumbai, Sterling Book House
- 5) Human learning, Jeanne. E.O, Third, 1999, Prentice Hall, New Jersey
- 6) Learning to learn, Kenneth A. Kiewra, Nelson F. Dubois, 1998, Allyn and Bacon
- 7) Basic Managerial Skills for all, E.H. Megrath, Third, 1989, Prentice hall of India Ltd.
- 8) Managing Time, Dr.R.L.Bhatia, First, 1994, Wheeler Publishing
- 9) Manage Your Time, Tim Hindle, 1998, Drling Kindersley
- 10) Team Building, Glenn Parker, First, 2002, Viva Books Pvt Ltd. Mumbai
- 11) Leadership Training, Elizabeth M. Christopher, First, 2002, Viva Books Pvt Ltd. Mumbai
- 12) Relevant DG Shipping MS notices and training circulars

Food Production and Patisserie:-

Reference Books:-

- 1) Bakery materials & methods, A. R. Daniel
- 2) Basic Bakery, J. C. Dubey, 1st, 1992, G. N. Danri, G. D. Enterprise, B/13, 1st Floor, 389/91, JSS Road, Mumbai.
- 3) Basic Pastry Work Techniques, L. G. Nicollello & J. Dinsdall
- 4) Bread, Eric Treuille & Ursula Ferrigrio
- 5) Cake Icing & Decorating, Handship, Carole
- 6) Cruising Cuisine, Kay Pastorius, 1997, Warsash Nautical Books 6, Dibles Road, Warsash, Sonthampton 5031, 9 H2, UK
- 7) Food Commodities, Bernard Davis, 4th, 1998, William Heinmen Ltd. 15, Queens Street, May Fair, London
- 8) Food Production Operations – Parvinder S. Bali-Oxford Publication
- 9) Ice Cream, Sophie Hale

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- 10) Ice Cream, Sophie Hale
- 11) Kitchen a float galley management & meal preparation, Joy Smith, 2002, Warsash Nautical Books 6, Dibbles Road, Warsash, Sonthampton 5031, 9 H2, UK
- 12) Modern Cookery for Teaching and Trade, Thangam E. Philip, 4th Vol., 1996, Orient Longman Ltd., Mumbai.
- 13) Modern Cookery Vol I & Vol II, Thangam E. Philip
- 14) Pizza Toppings, Hamlyn
- 15) Professional Baking, Wayne Gisselen, 2nd, 199, John Weily & Sons 605, 3rd Avenue, N. Y.
- 16) Professional Baking, Wayne Gisslen
- 17) Professional Charcuterie – David Harvey- Wiley Publication
- 18) Professional Chef, American Culinary Institute, 1996, John Liley & sons, New York.
- 19) Professional Cooking, 4th, 1992, John Weily & Sons 605, 3rd Avenue, N. Y.
- 20) The Art & Science of Culinary Preparation, Jerald W. Chesser, 2003, Education Institute of American Culinary Federation
- 21) The care & feeding of sailing crew, Lin Pardey with Larry Pardey, 1995, Warsash Nautical Books 6, Dibbles Road, Warsash, Sonthampton 5031, 9 H2, UK
- 22) Theory of Catering, Kinton Ceserani, 7th, 1996, Hodder & Stoughton Educational, 338, Euston Road, London
- 23) Theory of Cookery, Krishna Arora, 1988, New Delhi, Frank Bros. & Co.
- 24) Theory of Cookery, Krishna Arora, 2nd, 1992, Frank Bros & Co. Ltd, 4675, Darya Ganj, New Delhi
- 25) Understanding Baking, Joseph Amendola, Donald Lundberg

Food and Beverage Service:-

Reference Books:-

- 1) Cruising Cuisine, Kay Pastorius, 1997, Warsash Nautical Books 6, Dibbles Road, Warsash, Sonthampton 5031, 9 H2, UK
- 2) Food & Beverage Service, Sudhir Andrews, Tata McGraw Hill Publications, New Delhi.
- 3) Food and Beverage Management, Bernard Davis, Edward Lockwood, Second, 1994, Butterworth Heinemann
- 4) Food and Beverage Management, Bernard Davis, Edward Lockwood, Second, 1994,
- 5) Food and Beverage Service, Dennis Lillicrap, John Cousins Robert Smith, Fifth, 1998, Hodder and Stoughton Educational, 338 Euston Road, London
- 6) Food Service Facilities and Planning, Edward A Kazarian, Third, 1989, John Wiley and Sons
- 7) Hotel Law by Amitabh Devendra
- 8) How to Manage a successful bar, Christopher Egerton Thomas, 1994, John Wiley
- 9) Marketing by Menu, Nancy Loman Scanlon, Third, 1999, John Wiley
- 10) Pocket Wine Book, Hugh Johnson, Twentieth, 1997, Michelle Beazley, Michelin House, 81 Fulham Road, London SW3 6RB
- 11) Professional Food & Beverage Service Management, Brian Varghese
- 12) Spirits and Liquors, Rosalind Cooper, First, 1982 M.P Books, P.O Box 5367, Tucson, AZ 8573
- 13) The Book Of Wine, Stuart Walton, First, 1997, Joanna Lorenz Annez Publishing Ltd., Hermes House, 88-89 Black Friars Road, London SE1 SHA
- 14) The Cant Go Wrong Book of Drinks, Shatbhi Basu, First, 1999, Business Publications Inc., 229/A, Krantiveer Rajguru Marg, Girgaon, Mumbai
- 15) The care & feeding of sailing crew, Lin Pardey with Larry Pardey, 1995, Warsash Nautical Books 6, Dibbles Road, Warsash, Sonthampton 5031, 9 H2, UK
- 16) The International Guide to Drinks, United Kingdom Bartenders' Guild, 1994,

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- Vermilion, Random House, 20 Vauxhall Bridge road, London SW 1V2SA
- 17) The New Wine Companion, David Burroughs and Norman Bezzant, Second, Wine and Spirits Education Trust
 - 18) The Penguin Wine Book, Pamela Vinoyke Prile, First, 1984, Allen Lane Penguin Books Ltd. 536, Kings Road, London SW10 0UH
 - 19) The World Atlas of Wine, Hugh Johnson, Fourth, 1994, Mitchell Beazley, Michelin House, 81 Fulham Road, London SW3 6RB
 - 20) Waiter and Waitres Training Manual, Sandra J. Dalmer, Kurt W. Kohl, Fourth, 1996, John Wiley

Accommodation and Facilities Management:-

Reference Books:-

- 1) Facilities Management And Maintenance, Quah, McGraw-Hill ISE
- 2) Facilities Management and the Business of Space, Wes McGregor, Danny Shiem-Shin Then, Arnold Publishers
- 3) Facilities Management in Networked Organisations, Bob Grimshaw, Blackwell Publishers
- 4) Facilities Management, Trevor Payne, Chandos Publishing (Oxford)
- 5) Facility Management: Risks and Opportunities, Bev Nutt, Peter McLennan
- 6) Facility, Location, and Land Use, Chan, Taylor & Francis Group
- 7) Fibres and Fabrics, Brenda Piper, Long Man Group Publications
- 8) Front Office Management, S K Bhatnagar, Frank Bros & Co (Publishers) Ltd., New Delhi.
- 9) Hotel Engineering Management, Gajanan Shirke, Shroff Publishers & Distributors PVT LTD, Navi Mumbai.
- 10) Hotel Facility Planning, Tarun Bansal, Oxford University Press, New Delhi.
- 11) Hotel Front Office Training Manual, Sudhir Andrews, Tata Mc Graw Hill Publications
- 12) Hotel Housekeeping operation and management, G Raghubalan & Smritee Raghubalan, Oxford University Press, New Delhi.
- 13) Hotel Housekeeping Training Manual, Sudhir Andrews, Tata Mc Graw Hill Publications
- 14) Hotel Management and Operations, Denney G Rutherford & Michael J O'Fallon, John Wiley & Sons, Inc, New Jersey.
- 15) Hotel, Hostel and Hospital Housekeeping, Joan C Branson & Margaret Lennox, Edverd Arnold Publications
- 16) Modern Household Science, Eva Mling, Allman Publications
- 17) Professional Management of Housekeeping operations, Robert J. Martin, Jhon Weily & Sons 605, 3rd Avenue, N.Y.

Cost & Financial Management-

Reference Books:-

- 1) Accountancy - R. L. Gupta
- 2) Accuracy in Food Costing and Purchasing, Francis T. Lynch, Amazon.com
- 3) Budgeting, costing and controls, Ozi D'cunha & Gleson D'cunha, 2001, Dicky's enterprise
- 4) Business Accountancy – Frank Woods, Pitman Publishing
- 5) Effective Financial Management, Anmol Publications

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- 6) Elements of Accountancy – Artbony, Addison & Wesley
- 7) Elements of Accounts, TS Grawal – S., Chand & Co.
- 8) Financial Management, Agarwal; Banerjee; Pragati Prakashan
- 9) Financial Management, Anmol Publications
- 10) Financial Management, IM Pandey, Vikas Publishing House (Published: 1999)
- 11) Financial Management, Kulkarni, P.V; Satyaprasad, B.G; Himalaya Publishing House (Published: 2002)
- 12) Financial Management, Viva Books
- 13) Financial Planning and Management, Ghosh, Anmol Publications (Published: 1999)
- 14) Financial Planning for the Entrepreneur, by Vaughn, Donald E.; Publisher: Prentice Hall (Published: 7/1996)
- 15) Food & Beverage Management, Sally Stone & Richard Kotas, 1998 & 1994
- 16) Principles of Food, Beverage, and Labor Cost Controls, Paul R. Dittmer and J. Desmond Keefe, amazon.com
- 17) Ratio Analysis for Small Business, Sanzo, Richard; Books for Business (Published: 5/2005)
- 18) Strategic Financial Management, Deep and Deep Publications

Soft Skills & Corporate Communication:-

Reference Books:-

- 1) 101 ways to better communication, Elizabeth Hierney, 1st Edition, 2001, Kogan Page
- 2) Organizational Behavior, Fred Luthans, Sixth, 1992, McGraw Hill
- 3) How to Assert Yourself, Listen to Others, and Resolve Conflicts, Robert Bolton
- 4) Communication Skills, Leena, Sen; Publisher: Prentice Hall of India
- 5) Communication Skills, Frank Brothers and Company LTD
- 6) Communication Skills (For the University of Mumbai), by Srinivas; Publisher: Tata Mcgraw Hill
- 7) Communication Process in Organizations, D.S. Dahiya, Rawat Publications
- 8) Human learning, Jeanne. E.O, Third, 1999, Prentice Hall, New Jersey
- 9) Learning to learn, Kenneth a Kiewra, Nelson F. Dubois, 1998, Allyn and Bacon
- 10) Basic Managerial Skills for all, E.H. Megrath, Third, 1989, Prentice hall of India Ltd.
- 11) Independent Study Techniques, P.D. Kulkarni & B.B. Sharama, 1986, T.T.T.I., Chandigarh

Food Science:-

Reference Books:-

- 1) Handbook of food & nutrition
- 2) Food microbiology
- 3) Food hygiene & sanitation
- 4) Nutritive value of Indian foods, Gopalan, 1995, Jacob Michael, Delhi
- 5) A trainee guide for managers of food service establishments, 1991, CBS Publishers & Distributors
- 6) Safe food handling, Stanley Thomas
- 7) The Prevention of food poisoning, Jill Trickett, 1992
- 8) Catering Management, an integrated approach, Sethi / Mohini, New Delhi, 1987, Wiley Eastern Ltd,
- 9) Industry Guide to Good Hygiene Practice: Catering Guide Ships, 2004, Chadwick House Group Ltd., 15, Hatfields, London – SE1 8DJ.
- 10) Catering Management, an integrated approach, Sethi / Mohini, New Delhi, 1987,

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- Wiley Eastern Ltd.
- 11) Industry Guide to Good Hygiene Practice: Catering Guide Ships, 2004, Chadwick House Group Ltd., 15, Hatfields, London – SE1 8DJ.

Principles of Management:-

Reference Books:-

- 1) Principles of Management, Agarwal & Banerjee, Pragati Prakashan
- 2) Principles of Management, Cliffs Notes, Ellen A. Benowitz, Publisher: Cliffs Notes
- 3) Principles of Management, R. N. Gupata, S.Chand & Company
- 4) Principles Of Management, N.Kumar, Anmol Publications
- 5) Principles of Management: Theory, Practices and Techniques, Nirmal Singh, Deep & Deep Publishers
- 6) Principles of Management For All, IIMS Publications
- 7) Principles of Management and Industrial Psychology, T. A. Sivasubramaniam, T R Publications
- 8) Principles of Management and Administration, Chandra Bose, Chandra, Prentice Hall of India
- 9) Creativity In Management (Effective Decision Making By Thinking Differently), Srinivas Shirur, Deep & Deep Publishers
- 10) Unlearning The Fifth Discipline: Power Politics And Control In Organizations, Devi Akella, Sage Publications

Environmental Studies:-

Recommended Books:

- 1) Erach Bharucha, text book of environmental studies, Universities press/Orient Blackswan
- 2) Jagdish Krishnaswami, R J Ranjit Daniels, 'Environmental Studies', Wiley India Private Ltd. New Delhi
- 3) Anindita Basak, 'Environmental Studies', Pearson
Deeksha Dave, "Text book of , 'Environmental Studies", Cengage learning, Thomason India edition
- 4) Benny Joseph , 'Environmental Studies', Tata McGRAW HILL
- 5) D L Manjunath, , 'Environmental Studies', Pearson
- 6) R Rajgopalan, , 'Environmental Studies', Oxford
- 7) Alok Debi, 'Environmental science and Engineering', University press
- 8) A Nagraj, Jeevan Vidya-A Primer

Entrepreneurship Skills:-

Reference Books:-

- 1) Entrepreneurship, Rajeev Roy, Oxford University Press, New Delhi.
- 2) Entrepreneurship in the Hospitality, Tourism and Leisure industry, Alison Morrison, Mike Remington and Claire Williams, Elsevier, Butterworth-Heinemann, Burlington.
- 3) The Dynamics of Entrepreneurial Development and Management, Vasant Desai, Himalaya Publishing House Pvt. Ltd. Mumbai.
- 4) Entrepreneurship & Small Business Management, Siropolis, All India Publishers Distributors
- 5) Effective Entrepreneurship Management, Anmol Publications
- 6) Entrepreneurship in the 21st Century, Rawat Publications
- 7) Development Banks and Entrepreneurship Promotion in India, Mittal Publications
- 8) Successful Entrepreneurship, Kanishka Publishers
- 9) Handbook of Entrepreneurship Development- An Entrepreneurs Guide to Planning,

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Starting, Developing and Managing a New Enterprise, Mangal Deep Publications

Strategic Management:-

Reference Books:-

- 1) Strategic Management, by Byars, Publisher: McGraw-Hill ISE (Published: 1996)
- 2) Strategic Management, by Pearce; Robinson, Publisher: McGraw Hill
- 3) Strategic Management in Action, by Coulter, Mary K., Prentice Hall (Published: 10/2004)
- 4) Strategic Management Of Energy Conservation, PR Shukhla, Publisher: Oxford & IBH Publishing
- 5) Accounting And Management In Theory And Practice, by Pramanik , Alok Kumar, Deep & Deep Publishers (Published: 2003)
- 6) Designing Knowledge Management Architecture: How To Implement Successful Knowledge Management Programs, by Shukla, Archana, Publisher: Response Books (Published: 2003)
- 7) Business Policy And Strategic Management, by Cherunliam, Francis; Himalaya Publishing House

Marketing Management:-

Reference Books:-

- 1) Understanding the Hospitality Consumer, Alistair Williams, Butterworth Heinemann
- 2) Hotel Convention, Sales, Services and Operations, Pat Golden-Romero, Butterworth Heinemann
- 3) Entrepreneurship, Rajeev Roy, Oxford University Press, New Delhi
- 4) Entrepreneurship in the Hospitality, Tourism and Leisure industry, Alison Morrison, Mike Remington and Claire Williams, Elsevier, Butterworth-Heinemann, Burlington
- 5) The Dynamics of Entrepreneurial Development and Management, Vasant Desai, Himalaya Publishing House Pvt. Ltd. Mumbai.
- 6) Entrepreneurship & Small Business Management, Siropolis, All India Publishers Distributors
- 7) Global Business Environments (Understanding Multicultural Behavior), Parhizgar, Kamal Dean;Jaico Publishing House (Published: 2003)
- 8) Ethics In Business And Management Concepts, RP Banerjee,Himalaya Publishing House

Human Resource Management:-

Reference Books:-

- 1) HRM In Tourism And Hospitality, Ross Lee, Thomson Learning
- 2) Job Analysis at the Speed of Reality, Darin E. Hartley, HRD Press0
- 3) Job Analysis: Methods, Research, and Applications for Human Resource Management in the New Millennium, Brannick, Michael T.; Levine, Edward L.; Levine, Edward L, Sage Publications
- 4) Human Resource Management, Bhattacharyya, Executive Excellence
- 5) Human Resource Management, V. K. Sharma, Viva Books
- 6) Human Resource Management And Human Relations, V. P. Michael, Himalaya Publishing House
- 7) Managing Human Resource, DBN Murthy, UBS Publishers Distributors Ltd.
- 8) Performance Measurement And Management, D.K. Suri, Executive Excellence
- 9) Human Resource Management: Principles And Practice, Aquinas, Vikas Publishing House
- 10) Managing People, VSP Rao, Executive Excellence
- 11) Human Resource Management- Text and Cases , K Aswathappa, Tata MC Graw

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- Hill Publicity Company Ltd, New Delhi
- 12) Human Resource Management In The Hospitality Industry - An Introductory Guide , Michael Boella & Steven Goss - Turner, Elsevier Butterworth - Heinemann , Burlington
- 13) Human Resource Management - Principles And Practice, P.C Aquinas, Vikas Publicity House Pvt.Ltd New Delhi
- 14) Human Resources Management and Human Relations, V.P Michael, Himalaya Publishing House, Mumbai.

5. List of Websites:-

6. List of Videos / You-Tube Videos:-

7. List of MOOCs:-

8. Minimum Qualification And Experience Prescribed For Teaching And Non Teaching Posts In B. Sc. Maritime Hospitality Studies:-

Minimum Qualification And Experience Prescribed For Teaching Staff:-

Sr. No.	Cadre	Qualification	Qualification & Experience for candidates from industry & profession
1	Assistant Professor		
A	Assistant Professor in Maritime Studies	i) Good academic record with at least 55% marks or B+ (or an equivalent grade in a point scale wherever grading system is followed) at the Master's Degree in a relevant subject from recognized University ii) Besides fulfilling the above qualification the candidate must have cleared the National Eligibility Test (NET) conducted by the UGC, CSIR or similar test accredited by the UGC like SLET/SET iii) Notwithstanding anything contained in sub clauses (i) & (ii) to this clause, candidates, who are, or have been awarded Ph.D. Degree in accordance with the University Grants Commission (Minimum Standards and Procedure for Award of Ph.D. Degree) Regulations, 2009, shall be exempted from the requirement of the minimum eligibility condition of NET/SLET/SET for recruitment and appointment	1) Chief Officer (Foreign Going) OR 2) MEO Cass II (Foreign Going) OR 3) Petty Office or above rank retired from Indian Navy with min. 5 yrs of experience in MTI. OR 4) GMDSS module can be taken by Radio officer as approved by D.G Shipping or IMO member flag state, holding GMDSS license. OR 5) Master's Degree in a

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		<p>of Assistant Professor or equivalent positions in University/Colleges/Institutions.</p> <p>iv) NET/SLET/SET shall also not be required for such Masters Programmes in disciplines for which NET/SLET/SET is not conducted</p> <p><i>OR</i></p> <p>55% or B+ or an equivalent grade in minimum 3 years Degree / Diploma in HMCT / Hospitality Studies or equivalent conferred by recognized University/ IHM / MHBT after 10+2 or its equivalent examination till Master's in Maritime Hospitality Studies or Hospitality Studies is executed by the any UGC recognized University.</p>	<p>relevant subject from recognized University.</p>
	<p>Assistant Professor in all Hospitality Core Subjects.</p>	<p>i) Good academic record with at least 55% marks or B+ (or an equivalent grade in a point scale wherever grading system is followed) at the Master's Degree in a relevant subject from recognized University</p> <p>ii) Besides fulfilling the above qualification the candidate must have cleared the National Eligibility Test (NET) conducted by the UGC, CSIR or similar test accredited by the UGC like SLET/SET</p> <p>iii) Notwithstanding anything contained in sub clauses (i) & (ii) to this clause, candidates, who are, or have been awarded Ph.D. Degree in accordance with the University Grants Commission (Minimum Standards and Procedure for Award of Ph.D. Degree) Regulations, 2009, shall be exempted from the requirement of the minimum eligibility condition of NET/SLET/SET</p>	<p>1) 55% or B + or an equivalent grade in respected or allied subject in min. 3 years Degree / Diploma in HMCT / Hospitality Studies or equivalent conferred by recognized University /AICTE / IHM / State Technical Boards after 10+2 or its equivalent examination.</p> <p>And</p> <p>The candidate having Min. 5 years of specialized experience in industry/ profession may be considered as a special case if deemed fit by the selection committee based upon expert's opinion that the same is essential in the core subject. or</p> <p>The candidate having at least 3 years of teaching experience in Maritime Training Institutes with TOTI or TOTA course approved by D. G. Shipping.</p> <p>OR</p>

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		<p>for recruitment and appointment of Assistant Professor or equivalent positions in University/Colleges/Institutions.</p> <p>iv) NET/SLET/SET shall also not be required for such Masters Programmes in disciplines for which NET/SLET/SET is not conducted</p> <p>OR</p> <p>55% or B+ or an equivalent grade in minimum 3 years Degree / Diploma in HMCT / Hospitality Studies or equivalent conferred by recognized University/ IHM / MHBT after 10+2 or its equivalent examination till Master's in Maritime Hospitality Studies or Hospitality Studies is executed by the any UGC recognized University.</p>	<p>2) Min. one year craftsmanship course with Masters in hotel or tourism management.</p> <p>And</p> <p>The candidate having Min. 15 years of industry or teaching experience out of which min. 5 years should be in Maritime Training Institutes.</p>
	<p>Assistant Professors in All Ability Enhancement Compulsory Course, Skill Enhancement course , Discipline Specific Elective</p>	<p>i) Good academic record with at least 55% marks or B+ (or an equivalent grade in a point scale wherever grading system is followed) at the Master's Degree in a relevant subject from recognized University</p> <p>ii) Besides fulfilling the above qualification the candidate must have cleared the National Eligibility Test (NET) conducted by the UGC, CSIR or similar test accredited by the UGC like SLET/SET</p> <p>iii) Notwithstanding anything contained in sub clauses (i) & (ii) to this clause, candidates, who are, or have been awarded Ph.D. Degree in accordance with the University Grants Commission (Minimum Standards and Procedure for Award of Ph.D. Degree) Regulations, 2009, shall be exempted from the requirement of the minimum eligibility condition of NET/SLET/SET</p>	<p>1) 55% or B + or an equivalent grade in respected or allied subject in min. 3 years Degree / Diploma in HMCT / Hospitality Studies or equivalent conferred by recognized University /AICTE / IHM / State Technical Boards after 10+2 or its equivalent examination.</p> <p>* For French module - B.A in French Literature or equivalent or Alliance b1 as conducted by Alliance Française.</p> <p>2) MBA / Master in relevant subjects.</p> <p>And</p> <p>The candidate having Min. 2 years of specialized experience in industry/ profession may be considered as a special case if deemed fit by the selection committee based upon expert's opinion that the same is essential in the core subject. or</p> <p>The candidate having at least 1 year of teaching experience in</p>

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		<p>for recruitment and appointment of Assistant Professor or equivalent positions in University/Colleges/Institutions.</p> <p>iv) NET/SLET/SET shall also not be required for such Masters Programmes in disciplines for which NET/SLET/SET is not conducted</p> <p>OR</p> <p>55% or B+ or an equivalent grade in minimum 3 years Degree / Diploma in HMCT / Hospitality Studies or equivalent conferred by recognized University/ IHM / MHBT after 10+2 or its equivalent examination till Master's in Maritime Hospitality Studies or Hospitality Studies is executed by the any UGC recognized University.</p>	<p>Maritime Training Institutes with TOTI or TOTA course approved by D. G. Shipping.</p>
2	Associate Professors		
	<p>Associate Professor in Maritime Studies</p>	<p>i) At least 55% marks or B+ (or an equivalent grade in a point scales wherever grading system is followed) at the Master's Degree in a relevant subject from recognized University and good academic record with Ph.D. Degree in the concerned / allied / relevant disciplines.</p> <p>ii) A minimum of eight years of experience of teaching and / or research in an academic / research position equivalent to that of Assistant Professor in a University, Colleges or Accredited Research Institutions / Industries excluding the period of PhD Research with evidence of published work and a minimum of 5 publications as books and or research / policy papers.</p> <p>iii) Contribution to educational innovation, design of new curricula and courses and technology mediated</p>	<p>1) Master Mariner (Foreign Going) OR</p> <p>2) MEO Cass II (Foreign Going)</p>

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		<p>teaching learning process with evidence of having guided doctoral candidates and research students.</p> <p>A minimum score as stipulated in the Academic Performance Indicator (API) based Performance Based Appraisal System (PBAS) as per University Circular No. CONCOL/TAU/40 of 2012 – 2013, dated 19th March 2013.</p>	
	<p>Associate Professor in all Hospitality Core Subjects.</p>	<p>i) At least 55% marks or B+ (or an equivalent grade in a point scales wherever grading system is followed) at the Master's Degree in a relevant subject from recognized University and good academic record with Ph.D. Degree in the concerned / allied / relevant disciplines.</p> <p>ii) A minimum of eight years of experience of teaching and / or research in an academic / research position equivalent to that of Assistant Professor in a University, Colleges or Accredited Research Institutions / Industries excluding the period of PhD Research with evidence of published work and a minimum of 5 publications as books and or research / policy papers.</p> <p>iii) Contribution to educational innovation, design of new curricula and courses and technology mediated teaching learning process with evidence of having guided doctoral candidates and research students.</p> <p>A minimum score as stipulated in the Academic Performance Indicator (API) based Performance Based Appraisal System (PBAS) as per University Circular No. CONCOL/TAU/40 of 2012 – 2013, dated 19th March 2013.</p>	<p>1) 55% or B + or an equivalent grade in respected or allied subject in min. 3 years Degree / Diploma in HMCT / Hospitality Studies or equivalent conferred by recognized University /AICTE / IHM / State Technical Boards after 10+2 or its equivalent examination.</p> <p>And The candidate having Min. 8 years of specialized experience in industry/ profession may be considered as a special case if deemed fit by the selection committee based upon expert's opinion that the same is essential in the core subject. or The candidate having at least 3 years of teaching experience in Maritime Training Institutes with TOTI or TOTA course approved by D. G. Shipping.</p> <p>OR</p> <p>2) Min. one year craftsmanship course with Masters in hotel or tourism management.</p> <p>And The candidate having Min. 15 years of industry or teaching experience out of which min. 7 years should be in Maritime Training Institutes.</p>

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	Associate Professors in All Ability Enhancement Compulsory Course, Skill Enhancement course , Discipline Specific Elective	<p>i) At least 55% marks or B+ (or an equivalent grade in a point scales wherever grading system is followed) at the Master's Degree in a relevant subject from recognized University and good academic record with Ph.D. Degree in the concerned / allied / relevant disciplines.</p> <p>ii) A minimum of eight years of experience of teaching and / or research in an academic / research position equivalent to that of Assistant Professor in a University, Colleges or Accredited Research Institutions / Industries excluding the period of PhD Research with evidence of published work and a minimum of 5 publications as books and or research / policy papers.</p> <p>iii) Contribution to educational innovation, design of new curricula and courses and technology mediated teaching learning process with evidence of having guided doctoral candidates and research students.</p> <p>A minimum score as stipulated in the Academic Performance Indicator (API) based Performance Based Appraisal System (PBAS) as per University Circular No. CONCOL/TAU/40 of 2012 – 2013, dated 19th March 2013.</p>	<p>1) 55% or B + or an equivalent grade in respected or allied subject in min. 3 years Degree / Diploma in HMCT / Hospitality Studies or equivalent conferred by recognized University /AICTE / IHM / State Technical Boards after 10+2 or its equivalent examination.</p> <p>OR</p> <p>2) MBA / Masters in Relevant Subjects.</p> <p>And</p> <p>The candidate having Min. 5 years of specialized experience in industry/ profession may be considered as a special case if deemed fit by the selection committee based upon expert's opinion that the same is essential in the core subject. or</p> <p>The candidate having at least 3 years of teaching experience in Maritime Training Institutes with TOTI or TOTA course approved by D. G. Shipping.</p>
Professor			
	Professor in Maritime Studies, Core Hospitality Subjects and Ability Enhancement Compulsory Course, Skill Enhancement course , Discipline Specific Elective	<p>Qualifications as above that are for the post of Associate Professor as applicable and</p> <p>A. (i) An eminent scholar with Ph. D qualification(s) in the concerned/ allied / relevant discipline and published work of high quality actively engaged in research with evidence of published work with a minimum of 10 publications as books and or research / policy</p>	

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		<p>papers.</p> <p>(ii) A minimum of ten years of teaching experience in Universities / colleges and or experience in research at the universities / National level institutions / industries including experience of guiding candidates for research at doctoral level.</p> <p>(iii) Contribution to educational innovation, design of new curricula and courses and technology mediated teaching learning process.</p> <p>(iv) A minimum score as stipulated in the Academic Performance Indicator (AP) based Performance Based Appraisal System (PBAS) as per University Circular No. CONCOL./TAU/ 40 of 2012 – 2013, dated 19th March, 2013.</p> <p>OR</p> <p>An outstanding professional, with established reputation in the relevant field, who has made significant contributions to the knowledge in the concerned / allied/ relevant discipline to be substantiated by credentials.</p>	
	<p>Principal</p>	<p>Qualifications as above that are for the post of Associate Professor, as applicable and total experience of 20 years of teaching / research / administration in Universities / colleges and other institutions of higher education out of which minimum 10 years experience in teaching is essential.</p> <p>OR</p> <p>PhD degree in concern / allied / relevant discipline (s) in the institution concerned with evidence if published work and research guide with a total experience of 15 years of teaching / research / administration in Universities / Colleges and other Institutions</p>	<p>Min. 3 years Degree / Diploma in HMCT / Hospitality Studies /Hotel Management, MBA or equivalent conferred by recognized University/AICTE / IHM / State Technical Boards after 10+2 or its equivalent examination.</p> <p>And</p> <p>The candidate having 10 years of specialized experience in industry/ profession / research out of which minimum 5 years experience in teaching in Maritime Training Institute approved by Director General of Shipping, Govt. of India with D. G. Shipping approved TOTI/TOTA course.</p>

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		<p>of higher education out of which minimum 10 years experience in teaching is essential.</p> <p>A minimum score as stipulated in the Academic Performance Indicator (AP) based Performance Based Appraisal System (PBAS) as per University Circular No. CONCOL./TAU/ 40 of 2012 – 2013, dated 19th March, 2013.</p>	
	<p>Librarian</p>	<p>i) A Masters Degree in Library Science / Information Science / Documentation Science or an equivalent professional degree with at least 55% marks (or an equivalent grade in a point scale wherever grading system is followed) and a consistently good academic record with knowledge of computerization of library.</p> <p>ii) Besides fulfilling the above qualification, the candidate must have cleared the National Eligibility Test (NET) conducted by the UGC, CSIR or similar test accredited by the UGC like SLET/SET.</p> <p>However, candidates, who are, or have been awarded PhD. Degree, in accordance with the University Grants Commission (Minimum Standards and Procedure for Award of PhD. Degree) Regulations, 2009, shall be exempted from the requirement of the minimum eligibility condition of NET/SLET/SET for recruitment and appointment of librarian</p>	
<p>NOTE: -These qualifications are prescribed under the circumstances where Masters Degree in Hospitality Studies or Maritime Hospitality Studies does not exist in any of the University in India and hence may be reviewed after 5 years and revised as per the situation then.</p>			

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Minimum Qualification And Experience Prescribed For Non Teaching Posts In B. Sc. Maritime Hospitality Studies:-

Sr. No.	Cadre	Qualification	Qualification & Experience for candidates from industry & profession
1	Training and Placement Officer	MHM, MTM, MBA, Master Mariner Foreign Going	3 years Degree / Diploma in HMCT / Hospitality Studies /Hotel Management, MBA with minimum 2 years experience in Training & Placement.
2	Registrar	1) Any Post Graduate degree with at least at 55% marks or its equivalent grade and min. 10 years of experience in academic administration. 2) Good computer knowledge. 3) Good communication skill.	
3	Office Superintendent	1) Any Post Graduate degree with at least at 55% marks or its equivalent grade and min. 7 years of experience in academic administration. 2) Good computer knowledge. 3) Good communication skill.	
4	Senior Office Assistant Or Clerk	1) Any graduate with min. 5 years of experience in academic administration. 2) Good computer knowledge. 3) Good communication skill.	
5	Office Assistant Or Cashier	1) Any graduate with min. 3 years of experience in academic administration. 2) Good computer knowledge. 3) Good communication skill.	
6	Storekeeper	1) Any graduate with / without experience in store management. 2) Good computer knowledge. 3) Good communication skill.	
7	Lab Assistant	A) 10 th pass with minimum one year craftsmanship course in respective area or Certificate Course in Maritime Catering / Saloon Rating certificate holder from any Directorate General of Shipping approved Institute. OR B) 10 th pass with minimum 5 years of work experience in catering industry or in any Hotel Management	

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		or Hospitality Studies college	
8	Senior Lab Attendant	10th pass with minimum 2 years of work experience in catering industry or in any Hotel Management or Hospitality Studies college	
9	Jr. Lab Attendant	10th pass with work experience in catering industry or in any Hotel Management or Hospitality Studies college.	
10	Peon	8 th Pass	

26. Teaching and Non Teaching Staff Requirement:- For B.Sc. in Maritime Hospitality Studies

Teaching Staff Requirement:-

SUBJECT	FY	FY & SY	FY, SY & TY	Remark
Maritime Studies	1 Full Time Faculty	1 Full Time Faculty & 1 Visiting Faculty	1 Full Time Faculty & 1 Visiting Faculty	Visiting faculty is for Computer base syllabus.
Food Production	1 Full Time Faculty	2 Full Time Faculty & 1 Visiting Faculty	3 Full Time Faculty	
Food & Beverage Service	1 Full Time Faculty	1 Full Time Faculty & 1 Visiting Faculty	2 Full Time Faculty	
Accommodation & Facility Management	1 Full Time Faculty	1 Full Time Faculty & 1 Visiting Faculty	2 Full Time Faculty	
Cost & Financial Management, Principles of Management, Entrepreneurship Skills, Marketing Management, Strategic Management, Human Resource Management	1 Visiting Faculty	1 Visiting Faculty	1 Full Time Faculty	
Food Science	1 Visiting Faculty	1 Visiting Faculty	NA	Sem I & III
Soft Skills & Corporate Communication	1 Visiting Faculty	NA	NA	Sem I
Environmental Studies	1 Visiting Faculty	NA	NA	Sem II
Project	NA	NA	Students can select any faculty as a guide from	Sem VI

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		available faculties.
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Non Teaching Staff Requirement:-

Designation	No. of Staff (As Per Requirement)	Laboratories	Remarks
Training and Placement Officer	1	--	Promote Jr. staff or employ new in TY.
Registrar	1	--	Promote Jr. staff or employ new in TY.
Office Superintendent	1	--	Promote Jr. staff or employ new in TY.
Senior Office Assistant Or Clerk	1	--	Promote Jr. staff or employ new in SY.
Office Assistant Or Cashier	1	--	--
Storekeeper	1	--	--
Lab Assistant	FY - Nil	Nil	Promote Senior Lab Attendant or employ new.
	SY - Nil	Nil	
	TY - 1	1 - Food Production	
Senior Lab Attendant	FY -1	1 - Food Production	Promote Jr. Lab Attendant or employ new.
	SY - Nil	Nil	
	TY - Nil		
Jr. Lab Attendant	FY -4	1- Food & Beverages 1 – Accommodation & Facility Management 1 – Seamanship	
	SY – Nil	1 – Food Production and Bakery Practical	
	TY – Nil		
Utility hands	6	4- Food Production 1- Food & Beverages	

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		1 – Accommodation & Facility Management	
Peon	1		Administration area

27. LIBRARY FUNDS:-

The college / institution shall spend minimum Rs 1,00,000 in the first year on purchase of books and journals as the initial investment on the library, thereafter the entire library fees collected from the students shall be invested on library as per university guidelines.

28. EQUIPMENTS

Equipments (Area/ Laboratory wise)

Sr. No.	Particulars/ Equipments	Qty. Required
I	COMPUTER LAB	1
6	Server	1
7	Computers with P4 processor	20
8	LAN Networking	As per the requirement
9	UPS (As per the requirement) Recommended	1
II	ACCOMMODATION & FACILITIES MANAGEMENT LAB	1
10	Mock Guest Room	1
11	Color TV with Remote	1
12	Wooden Cabinet	1
13	Cupboard/ Almirah	1
14	Life Jackets	1
15	Safety Helmet	2
16	Bed & bed Linen	2
17	Small Carpet	1
18	Luggage Rack	1
19	Chair	1
20	Writing Table	1
21	Table Lamp	1
22	Bedside Lamp	1
23	Single Beds & Mattress	2
24	Blankets	1
25	Pillows/Pillow Slips	2
26	Small Cushions	3
27	Upholstered Sofa	1
28	Upholstered Chair	1
29	Big Cushions	5

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30	Wall Hangings	7
31	Fire Extinguisher	1
32	Laundry Linen Cart	2
33	Chamber Maid Trolley	1
34	Mockup Guest Bathroom with Wash Basin Counter, WC, Bath tub, Mirror and Guest supplies	1 Each
	BUNKER BED	
35	Single Beds & Mattress	2
36	Working Table	1
37	Chair	1
38	Cupboard	1
39	Shower Curtain	1
40	Bed Linen	1 set
	MOCK LAUNDRY SET UP	
41	Cupboard With Racks	1
42	Ironing Board	1
43	Ironing Table	1
44	Stainless Steel Working Table	1
45	Linen Cart	2
46	Washer Extractor/Dryer	1
	EQUIPMENTS / CHEMICALS	
47	Commercial Wet and Dry Vacuum Cleaner (With attachments)	1
48	Commercial Scrubbing cum Polishing Machine (With attachments)	1
49	Cleaning Agents (R1 to R9)	As per the requirement
50	Chemicals for spotting (as per syllabus)	As per the requirement
III	ADVANCE TRAINING KITCHEN	
1.	Work Table Sink	15
2.	4 Burner Cooking Range (Both Side Operating)	15
3.	Frying pan with Long Handle (regular),	30
4.	Mixing bowl (16cm)	30
5.	Mixing bowl (20cm)	30
6.	Deep Colander	30
7.	High sauce pan with lid deep with helper handle	30
8.	Saute pan with lid deep with helper handle (20cm)	30
9.	Low sauce pan with lid deep with helper handle	30
10.	Grater	30
11.	Rolling Pins	30
12.	Colour Coded Chopping Boards	60
13.	Griddle with Handle	30
14.	Thali 16" Dia	30
15.	Strainer SS	30
16.	Perforated Round Spoon (Frying Spoon)	30
17.	Flat Spoon	30
18.	Round Spoon	30

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19.	Tongs (Pakkad)	30
20.	Chapati Tongs (Chimta)	30
	Common Equipments	
1	Chef Demonstration Table	1
2	2 Door Deep Freezer	1
3	2 Door Refrigerator Frost Free	1
4	Electronic Weighing Machine	1
5	Mixer Grinder	1
6	Conical Strainer	1
7	Salamander	1
8	Stock Pot (26 litre)	2
9	Hand Blender	1
10	Lime Squeezer	1
11	Egg Slicer	1
12	MS Baking Tray	10
13	Lighter	2
14	Steak Hammer	1
15	Potato Masher SS	1
16	Scissor	3
17	Brush for Basting	2
18	Mortar and Pastle	3
19	Double Deck Oven With Proving Chambers	1
20	Deep Fat Fryer 2 Compartment	1
21	Pasta Machine	1
22	Combi Oven	1
23	Hot Plate with Griddle	1
24	Pot Rack	2
25	Stock Pot 26ltr.	1
26	Soup Laddle	3
27	Chinese Chopper	1
28	Paddle Bins 120ltr (Wet & Dry)	4
29	Egg Cutter	4
IV	BASIC TRAINING KITCHEN	
1	Work Table with sink	30
2	2 burner cooking range	30
3	Frying pan with lid (regular),	30
4	Mixing bowl (1.4 litre)16cm	30
5	Deep Colander	30
6	High sauce pan with lid deep with helper handle	30
7	Grater	10
8	Rolling Pins	11
9	Colour Coded Chopping Board	60
10	Griddle with Handle	13

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11	Thali 16" Dia	14
12	Strainer SS	15
13	Perforated Round Spoon (Frying Spoon)	16
14	Flat Spoon	17
15	Round Spoon	18
16	Perforated Wooden Spoon	19
17	Tongs (Pakkad)	20
18	Chapati Tongs (Chimta)	21
19	Jhara	10
20	Perforated Spoon	10
21	Flat Spoon	10
22	Rice Spoon	10
23	Ladles (different sizes)	10
24	Frying Pan	20
V	BAKERY (S.Y)	
1.	Fridge	1
2.	Salamander	1
3.	Dough kneader with attachments	1
4.	Double deck oven	1
5.	Gas Range (05 Burner)	1
6.	S. S. Almirah	1
7.	Moulds (as per batch size)	30
8.	Cutters (as per batch size)	30
9.	Nozzles and piping bags	1 set each
10.	Trays (as per batch size)	30
11.	Cake stand	1
VI	TRAINING RESTAURANT (F.Y & S.Y)	
1.	Fridge (Small)	1
2.	Ice Cube Machine	1
3.	Dishwash	1
4.	Bar Display	1
5.	Gueridon trolley	1
6.	Bar chairs	3
7.	Bar Counter	1
8.	Wine Stand	1
9.	Cocktail Shaker	1
10.	Wine Bucket	1
11.	Wooden Almirah	1
12.	Service Table / Side Board	1
13.	Restaurant Table / chairs	5/20
14.	Dinner Plate (Ceramic)	20
15.	Quarter Plate (Ceramic)	20
16.	Soup Bowl (Ceramic)	20

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17.	Soup spoon	20
18.	B'fast Tray (Anti skid) Black	6
19.	Red Wine Glass	6
20.	Hi Ball Glass	6
21.	Tom Collins Glass/ Water Goblet	20
22.	Rolly Polly Glass	6
23.	Champagne Saucer	6
24.	Old Fashioned Glass	6
25.	Champagne Tulip	6
26.	white wine Glass	6
27.	Beer Mug	6
28.	Lobster cracker	1
29.	6 cup Tea pot	2
30.	Cup & saucer (Ceramic)	8
31.	Milk pot	2
32.	Sugar pot	2
33.	A. P. knife	20
34.	A.P. Spoon	20
35.	A.P. Fork	20
36.	Menu Stand S.S	5
37.	Oyster Knife	1
38.	Fish fork	20
39.	fish Knife	20
VII	WARE WASHING (F.Y, S.Y & T.Y)	
1.	Dish Washer	1
2.	Pot wash sink	1
3.	S. S. Rack	2
4.	Cleaning Chemicals	-
	LIFE SAVING APPLIANCE	As specified in D.G circulars, to conduct STCW courses, as amended.
	FIRE FIGHTING APPLIANCE	
	MEDICAL FIRST AID (MFA)	
	ENGINE ROOM EQUIPMENT	