

Career Oriented Programme**Approved By Bharathiar University****One Year Certificate Course -2024 -2025****JOURNALISM**

Course	Subject Code	Title of the Paper	Inst. Hrs	Exam Dur. Hrs	Max.Marks			Credits
					CIA	ESE	Total	
1 Year Certificate Course	21CJM01	Ihazliyal Arimugam	30	3	50	50	100	5
	21CJM02	Ihazliyal Uvdhakamum vilabaramum	30	3	50	50	100	5
	21CJM03	Practical	30	3	50	50	100	5

**Career Oriented Programme
Approved By Bharathiar University
One Year Certificate Course -2024 -2025**

JOURNALISM

Instruction Hrs.:60

Subject Code : 21CJM01

Max.Marks: CIA -50; ESE-50

Credits:5

Objects : பெண்களுக்கு பெண்களால் விழிப்புணர்வை ஏற்படுத்தி, சமூகத்தில் தன்னை ஈடுபடுத்திக் கொள்ளச் செய்தல்

Out Come : இதழியல் பற்றிய எண்ணக்கருக்களை இலகுவில் புரிந்து கொள்ளுதல்.

தாள் 1 இதழியல் அறிமுகம்

அலகு - 1

இதழ்களின் அறிமுகம் - வளர்ச்சி , இதழியல் கலைச்சொற்கள் - இதழ்களின் சிறப்பும் நோக்கமும் - இதழ்களின் வகைகள் - பண்புகள்

அலகு-2

செய்தி வரையறை - வகைகள் - செய்தியாளர் (நிருபர்) தகுதிகள் - பொறுப்புகள் - கடமைகள் - செய்திக்களங்கள் - ஆசிரியர் - துணை ஆசிரியர் தகுதிகள் - கடமைகள் - பொறுப்புகள் - நேர்காணல் - விளக்கம் - வகைகள்

அலகு - 3

இதழ்களில் பக்க அமைப்பு - இதழ்களின் உட்கூறுகள் - பல்வேறு பிரிவுகள் -
கருத்துப்படம் - தலையங்கம் - விளம்பரம் - கேள்விபதில் - துணுக்குகள் -
கதை - கவிதை

அலகு- 4

அச்சுப்படி திருத்தமும் குறியீடுகளும் - செம்மையாக்கம் - மொழிநடை -
அச்சிடுதலின் நவீனப்போக்குகள் - இயந்திரப்பிரிவு

அலகு - 5

இதழ்களின் நோக்கம் - சமுதாயக் கடமை - பொறுப்புணர்வு - இதழ்களின்
பங்களிப்பும் பணிகளும் - இதழியல் சட்டங்களும் , கோட்பாடுகளும் - இந்திய
அரசியலமைப்பு - அடிப்படை உரிமைகள் - வெளிப்படுத்தும் சுதந்திரம்

பார்வை நூல்கள்- இதழியல் கலை - மா.பா.குருசாமி

பத்திரிகைத் தமிழ் - சோமலே

இதழியல் அறிமுகம் - முத்துக்கிருஷ்ணன்

**Career Oriented Programme
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JOURNALISM

Instruction Hrs.:60

Subject Code : 21CJM02

Max.Marks: CIA -50; ESE-5 0

Credits:5

Objects : ஊடகங்களை சரியான முறையில் கையாளுதல்

Out Come : இதழியல் வரலாற்றை அறிதலின் வாயிலாக ஊடகத்தின் வலிமையை உணர்தல்

தாள் - 2

இதழியல் ஊடகங்களும் விளம்பரமும்

அலகு-1

வானொலி – செய்திகுரிய எண்ணம் - செய்தி தெரிவிப்பாளரின் தகுதிகள்-
வானொலி நிகழ்ச்சி வகைகள் - சிறுவர் - ஆடவர் - பெண்கள் -
தொழிலாளர்களுக்கான நிகழ்ச்சிகள் - அறிவியல் கல்வி ஒலிபரப்புகள்

அலகு - 2

தொலைக்காட்சி - தொலைக்காட்சி – நிர்வாகம் - பல்வேறு நிலைகள் -
தொலைக்காட்சிக்கு எழுதும் முறை – செய்தி தயாரிப்பில் கவனிக்க
வேண்டுவன – விமர்சனம்

அலகு- 3

இணையம் - சமூக வலைதளங்கள் - மின்னஞ்சல் - அலைபேசி - சமூக
மாற்றங்கள் - நன்மைகள் - தீமைகள் - இதழியல் இணையத்தின் பங்கு

அலகு - 4

விளம்பரம் - விளம்பரத்தின் பொருள் - நோக்கம் - வரலாறு - வளர்ச்சி -
விளம்பரத்தின் வகைகளும் பயன்களும்

அலகு - 5

விளம்பர நிறுவனங்கள் - விளம்பர சாதனங்கள் - விளம்பர பொருளாதாரம் -
விளம்பர நகல் தயாரித்தல், உத்திகள் - விளம்பரங்களும் சட்டங்களும்

பார்வை நூல்கள்: விளம்பரக் கலை - டாக்டர் அ. விநாயகமூர்த்தி

பத்திரிகைத் தமிழ் - சோமலே

இதழியல் அறிமுகம் - முத்துக்கிருஷ்ணன்

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JOURNALISM

Instruction Hrs.:60

Subject Code:21CJM03

Max.Marks: CIA -50; ESE-5 0

Credits:5

செய்முறைப் பயிற்சி

பயிற்சிகள்:

1. தலையங்கம் எழுதுதல்
2. செய்தி வரைவுகள்
3. துணுக்குகள்
4. வாசகர் கடிதம்
5. கருத்துப்படம்
6. கேலிச் சித்திரம்
7. வானொலி செய்தி எழுதுதல்
8. வானொலியில் பேசுதல்
9. வானொலி நிகழ்ச்சி ஒன்றைத் தயாரித்தல்

10. தொலைக்காட்சிக்கு செய்தி எழுதுதல்
11. தலைப்பு செய்திகள்
12. நேர்காணல்
13. முன்னறிவிப்பு, தடைச் செய்திகள்

Distribution of Marks

Courses	CIA	ESE	Maximum Marks
Theory	50	50	100
Practicals	50	50	100

i) Components for Internal Assessment (Theory):

CIA Tests & Model Examination	Seminar/Assignment	Class Participation	Total
30 (20+20+50/3)	10	10	50

Question Paper Pattern:

	Section A	Total
CIA Test	2x10 = 20 marks (Open Choice - any TWO out of Three questions)	20
Model/ESE	5x10=50 marks(Open Choice-any FIVE out of Eight questions)	50

ii)

Components for Internal Assessment (Practicals):

CIA Tests & Model Examination	Record	Skill/Viva	Total
30 (20+20+50/3)	10	10	50

Model/ESE pattern for Practical Examinations:

Maximum Marks	Practical	Record
50	45	5

CERTIFICATE COURSE IN COMMUNICATION SKILLS

(Career Oriented Course- 180 Hrs)

Subject Code :22CCS21

PAPER I – WRITTEN COMMUNICATION

Aim: To equip learners with Language Skills for **Career Opportunities**.

Objective: To enhance effective Written and Oral Communication Skills in English.

Unit I : Describing Spatial Relationships. (Unit 1 pp. 8-19)

Unit II : Understanding Time Order – Linear Relationships. Writing about events in time.
(Unit 6 pp.57-67)

Unit III : Describing Process in Linear Sequence. (Unit 7 pp. 68-78)

Unit IV: Linear Relationships – Cyclical Process. (Unit 8 pp. 79-88)

Unit V: Linear Relationships – Cause and Effect. (Unit 9 pp. 89-97)

Text : Study Writing – Liz Hamp – Lyons & Ben Heasley – 2003. Cambridge University Press.

Subject Code :22CCS22

PAPER II – ORAL COMMUNICATION

Objective: To familiarize the students to correct pronunciation of English sounds and utterances in actual conversation which helps them to master oral communication.

Unit I : Sounds of English and Speech Organs.

Unit II : Transcription Symbols for English Vowels and Consonants.

Unit III : English Stress.

Unit IV: Intonation.

Unit V: Utterances in actual conversation using correct pronunciation, Stress & Intonation.

Text : Better English Pronunciation – J.D.O' Connor.

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UGC Approved Add – On Certificate, Diploma &
Advanced Diploma Courses on
‘Tourism & Hospitality Management’
Course Content & Scheme of Examinations

S.No	Course	Subject Code	Subjects	Lecture Hours	Marks			Credits
					CIA	EXT	Total	
1.	Certificate (I Year) (20 Credits)	24ATH21	Paper-1 :Tourism Promotion	90	25	75	100	4
		23ATH22	Paper-2: Front Office Operations	105	25	75	100	5
		24ATH23	Paper- 3 : Hospitality Marketing	105	25	75	100	7
		23ATH2T	Training	150	-	-	100	4
2.	Diploma (II Year) (20 Credits)	23ATH44	Paper -4: Tourism Marketing	90	25	75	100	4
		23ATH45	Paper- 5: House Keeping	105	25	75	100	5
		23ATH46	Paper- 6: Hospitality in Hotels	105	25	75	100	7
		23ATH4T	Training	150	-	-	100	4
3.	Advanced Diploma (III Year) (20 Credits)	23ATH67	Paper -7: Eco-Tourism	90	25	75	100	4
		23ATH68	Paper- 8: Travel Agency Management	105	25	75	100	5
		23ATH69	Paper- 9: Ticketing	105	25	75	100	7
		23ATH6V	Project/Viva Voce	150	-	-	100	4

***Duration of the Examinations for all the papers = 3 Hours**

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‘Tourism & Hospitality Management’

Certificate Course

Paper-1

TOURISM PROMOTION

Instructional Hrs: 90

Sub. Code: 24ATH21

Max Marks CIA -25; ESE-75

Credits: 4

Unit – I

18 Hrs

Meaning & Nature of Tourism - Basic Components of Tourism- Elements of Tourism -
Scope of Tourism

Unit – II

18Hrs

Motivating Factors for Tourism Promotion- Tourism Planning & Development-
Advertisement and Publicity – Website - Media and Sales

Unit – III

18 Hrs

The Organization of Tourism- Role of Travel Agency in Tourism- Public Relation in
Tourism- Basic Rules for Effective Public Relation- Section of Appropriate Tools for Publicity

Unit – IV

18 Hrs

Post - Second World War Phenomenon- Causes of Rapid Growth - Growth & Development
of Modern Tourism- Benefit of Tourism -Tourism Amenities- Effects

Unit- V

18 Hrs

Basic Travel Motivations - Sociology of Tourism- Role of State in Promoting Social
Tourism - Exhibitions and Fairs

REFERENCE BOOKS:

1. **Bhatia ,A.K,** *Tourism Development, Tourism Management and Marketing,* Sterling Publishers Pvt Ltd, New Delhi, 2001
2. **Sagar Singh.,** *Studies in Tourism Key Issues for Effective Management,* A.P.H. Publishing Corporation, New Delhi, 1999.
3. **Sudhir Andrews,** *Introduction to Tourism & Hospitality Industry,* Tata McGraw-Hill Publishing Company Ltd. New Delhi, 2007.

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on
‘Tourism & Hospitality Management’

Certificate Course

Paper-2
FRONT OFFICE OPERATIONS

Instructional Hrs: 105

Sub. Code: 23ATH22

Max Marks CIA -25; ESE-75

Credits: 5

Unit – I **20 Hrs**

Introduction to Hotel Industry - History of Hotel Industry - Front Office Introduction -
Basic Front Office Function

Unit – II **25 Hrs**

Reservation – Reception - Mode of Reservation - Types of Reservation - Front Office
Organization Chart - Duties and Responsibilities of each Staff

Unit – III **20 Hrs**

Job Description - Types of Rooms - Rates and Plan - Modes of Payment - Co-
ordination

Unit – IV **20 Hrs**

Scanty Baggage - Left Luggage - Mail and Telephone Handling - Bell Desk

Unit- V **20 Hrs**

Basic Principles of Accounting - Sources of Credit - Check in and Checkout Procedures
- Front Office Terms

REFERENCE BOOKS:

- 1. Ranjit Taneja**, *Fundamentals of Hospitality*, Alfa Publications, New Delhi 2006.
- 2. Ratan Deep Singh**, *Hotel Front Desk Management and Online Services*, Kanishka Publishers and distributors, New Delhi 2007.
- 3. Sudhir Andrews**, *Introduction to Tourism & Hospitality Industry*, Tata McGraw-Hill Publishing Company Ltd. New Delhi, 2007.

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Certificate Course

Paper-3

HOSPITALITY MARKETING

Instructional Hrs: 105

Sub. Code: 24ATH23

Max Marks CIA -25; ESE-75

Credits: 7

Unit – I

20 Hrs

Constituents of Tourism Publicity – Meaning of Tourism –
– Marketing Concept in Tourism.

Unit – II

25 Hrs

Marketing Strategy - Planning identifying Potential Markets – Marketing
Information Systems.

Unit – III

20 Hrs

History of Accommodation -Types of Accommodation in Hospitality Industry -
Classification of Hotel - Forms of Hotel Ownership.

Unit – IV

20 Hrs

Customer Support – Potential Customers and their Needs – Customer Handling
Techniques.

Unit - V

20 Hrs

Managerial Issues and Problems - Economic Impact of Tourism

REFERENCE BOOKS:

1. **Mathews. J**, *Hospitality Marketing And Management*, Aavishkar Publishers and distributors, Jaipur 2006.
2. **Mridula Mirajkar**, *Hotel Management, Marketing, Sales and accounting*, Kanishka Publishers, New Delhi 2008.
3. **Ranjit Taneja**, *Fundamentals of Hospitality*, Alfa Publications, New Delhi 2006.
4. **Ratan Deep Singh**, *Hotel Front Desk Management and Online Services*, Kanishka Publishers and distributors. New Delhi 2007.
5. **Sudhir Andrews**, *Introduction to Tourism & Hospitality Industry*, Tata McGraw-Hill Publishing Company Ltd. New Delhi, 2007.
6. **Ferrell.O.C**, *Marketing Concepts and Strategies*, Houghton Mifflin, 2005.

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TOURISM & HOSPITALITY MANAGEMENT
Diploma
Paper-4

TOURISM MARKETING

Instructional Hrs: 90

Sub. Code: 23ATH44

Max Marks CIA -25; ESE-75

Credits: 4

Unit – I

18 Hrs

Introduction – Concept of Marketing – Market Segmentation

Unit – II

18 Hrs

Tourism Marketing Mix - Promotion and Place - Product and Price - Tourism Marketing Environment - Customer Value

Unit – III

18 Hrs

Microenvironment – Company – Suppliers - Marketing Intermediaries – Customers and Public; Macro - Environment: Demographic – Economic – Natural - Technological

Unit – IV

18 Hrs

Political and Cultural Environments - Satisfaction and Loyalty - Advertizing - Objective and Advantages - Planning Advertizing

Unit- V

18 Hrs

Corporate Communications - Selection of Media - Sales Support Techniques

REFERENCE BOOKS:

1. **Bhatia ,A.K** *Tourism Development, Tourism Management and Marketing*, Sterling Publishers Pvt Ltd, New Delhi, 2001
2. **Sagar Singh.**, *Studies in Tourism Key Issues for Effective Management*, A.P.H. Publishing Corporation, New Delhi, 1999.
3. **Thandavan. R & Revathy Girish**, *Tourism Product*, Dominant Publishers and Distributers, New Delhi, 2006
4. **Alastair M. Morrison**, *Hospitality and Travel Marketing*, (Delmar ThomsonLearning)2010.
5. **Peter Mudie and Angela Pirrie**, *Services Marketing Management*, Amsterdam, Butterworth- Heinemann, USA.2006.
6. **S.M. Jha**, *Services Marketing*, Himalaya Publishing House Pvt ltd. New Delhi,2008.

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TOURISM & HOSPITALITY MANAGEMENT
Diploma
Paper-5

HOUSE KEEPING

Instructional Hrs: 105

Sub. Code: 23ATH45

Max Marks CIA -25; ESE-75

Credits: 5

Unit – I

20 Hrs

Organization Chart of House Keeping Department - Layout of House Keeping - Job Description of House Keeping Staff - House Keeping Department Co-ordinate with Other Department - Quality of House Keeping Staff.

Unit – II

20 Hrs

Lost and Found Procedure - Maids Cart - House Keeping Cleaning Equipment and Agents - Types of Cleaning Equipment - Occupied Guest Room Cleaning Procedure - Check Out Room Cleaning Procedure - Swimming Pool Cleaning Procedure - Public Area and Floor Cleaning Procedure

Unit – III

20 Hrs

Types of Room - House Keeping Terms - Register Maintained House Keeping Department - Preparing Room Report

Unit – IV

20 Hrs

Role of Desk Control - Guest Supplies - Pest Control - Types of Pest - Guest Amenities

Unit V

20 Hrs

Layout of Laundry - Linen Room - Storage Condition - Types of Linen - Types of Laundry Services

House keeping practical's

5hrs

REFERENCE BOOKS:

1. **Andrews.S** *Text book of Hotel House Keeping Management and Operations*
2. **Andrews.S** *Hotel House Keeping Training Manual*
3. **Mridula Mirajkar**, *Hotel Management, Marketing, Sales and accounting*, Kanishka Publishers, New Delhi 2008.

PRACTICAL – HOUSE KEEPING

5 Hrs

1. Identification of cleaning equipments, cleaning agents and their applications.
2. Cleaning Procedure – Wall, Floor, Floor finish carpets, Furniture
3. Cleaning Process - Bath room, Public area, Weekly cleaning, Spring cleaning.
4. Bed Making.
5. Control desk activities – Maintaining files, registers, lost and found procedures

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TOURISM & HOSPITALITY MANAGEMENT
Diploma
Paper-6

HOSPITALITY IN HOTELS

Instructional Hrs: 105

Sub. Code: 23ATH46

Max Marks CIA -25; ESE-75

Credits: 7

Unit – I

20 Hrs

Introduction and Nature of Hospitality Industry – Definition of Hospitality – Hospitality in Hotels

Unit – II

20 Hrs

Relationship between Hospitality & Hotel Industry – Duties and Responsibilities of Front Office Personnel's - Customer Friendly

Unit – III

20 Hrs

Duties and Responsibilities of Service Personnel's – Guest Satisfaction – Follow ups of Guest needs

Unit – IV

25 Hrs

Guest Relations - Duties and Responsibilities of G.R.E (Guest Relation Executive) – Handling Guest Complaints and Feedbacks – Follow ups and Remedies for the Complaints

Unit - V

20 Hrs

Customer Care – Safety Measures and Precautions – Problem Handling and Handling Emergency Situations

REFERENCE BOOKS

1. **Mridula Mirajkar**, *Hotel Management, Marketing, Sales and accounting*, Kanishka Publishers, New Delhi 2008.
2. **Ranjit Taneja**, *Fundamentals of Hospitality*, Alfa Publications, New Delhi 2006.
3. **Sudhir Andrews**, *Introduction to Tourism & Hospitality Industry*, Tata McGraw-Hill Publishing Company Ltd. New Delhi, 2007.

UGC SPONSORED CAREER ORIENTED PROGRAMME

TOURISM & HOSPITALITY MANAGEMENT

Advanced Diploma

Paper-7

ECO TOURISM

Instructional Hrs: 90

Sub. Code: 23ATH67

Max Marks CIA -25; ESE-75

Credits: 4

Unit – I

18 Hrs

Definition of Eco Tourism – Concepts - Perspectives of Eco Tourism - Characteristics of Eco Tourism

Unit – II

18 Hrs

Development of Eco Tourism in India - Management of Eco Tourism - Environmental Conservation

Unit – III

18 Hrs

Employment Potential - Nature Tourism Resources in India - Economic Transition in Post Independent India - A Quick Review – Liberalization - Privatization and Globalization - Tourism Forecasting of WTTC & UNWTO Managing Tourism Business during Economic Slowdown - FDI in Tourism.

Unit – IV

18 Hrs

Tourism Multiplier Effects - Balance of Payments - Foreign Exchange - Displacement Effect and Tourism - Tourists Spending - Cost and Benefits Analysis of Tourism

Unit - V

18 Hrs

Tourist Destinations in India - Land Based Tourist Destination - Air Based – Water Based Cultural Monuments in India (Goa, Jaipur, Hampi & Mahabalipuram)

REFERENCE BOOKS

1. **Bhatia. A.K.**, *International Tourism Management*, Sterling publishers private limited, New Delhi, 2007.
2. **Pran Nath Seth & Sushma Seth Bhat**, *An introduction to Travel and Tourism*, Sterling Publishers Private limited, New Delhi, 2007.
3. **Pruthi. R.K.**, *Eco Tourism*, Saad Publications, Delhi, 2006.
4. **Revathy Girish**, *Indian Tourist Panorama Dominant*, Publishers and distributors, New Delhi, 2007.
5. **Petterson**: *Managerial Economics*, 3rd Ed., Prentice Hall of India, Delhi.
6. **Sinclair, M.T. and Stabler, M.**, *The Economics of Tourism*, , Routledge, London 1997

UGC SPONSORED CAREER ORIENTED PROGRAMME
TOURISM & HOSPITALITY MANAGEMENT
Advanced Diploma

Paper-8

TRAVEL AGENCY MANAGEMENT

Instructional Hrs: 105

Sub. Code: 23ATH68

Max Marks CIA -25; ESE-75

Credits: 5

Unit - I

20 Hrs

Travel Agencies and Tour Operators - Meaning - Concept - Types and Importance

Unit - II

20 Hrs

Historical Growth and Development of Travel Agency and Tour Operation Business - Difference between Travel Agency and Tour Operator - Linkages and Integrations in Travel Agency and Tour Operation

Unit - III

20 Hrs

Setting up a Full - Fledged Travel Agency - Travel Agency Approval by MOT and IATA - Equipments and Infra Structural Requirements

Unit - IV

25 Hrs

Function of Tour Operator - Market Research Tour Package Formulation - Sources of Income of Tour Operation - Components of a Standard Package Tour

Unit - V

20 Hrs

Department of Tourism - Government of India and Respective State Government's Role in Uplifting Travel and Tour Business - Role and Responsibility of Travel Trade Associations: Objectives, Roles and Functions of UFTAA, PATA, IATA, IATO, WTO, TAAI, ATAOL, WATA

REFERENCE BOOKS

1. **Holloway, J.C.**, *The Business of Tourism*, McDonald and Evans, Plymouth, 1983.
2. **Syratt Gwenda**, *Manual of Travel Agency Practice*, Butterworth Heinmann, London, 1995..
3. **Stevens Laurence**, *Guide to Starting and Operating Successful Travel Agency*, Delmar Publishers Inc., New York, 1990.
4. **Chand.M**, *Travel Agency Management, an Introductory Text*. Anmol Publications Pvt. Ltd, New Delhi.
5. **Foster D.L**, *The Business of Travel Agency Operations and Administration*. McGraw Hill, Singapore
6. **Frenmount. P**, *How to open and Run a Money Making Travel Agency*. John Wiley and Sons, New York
7. **Holloway J.E**, *The Business of Tourism*. Pitman publishers

UGC SPONSORED CAREER ORIENTED PROGRAMME

TOURISM & HOSPITALITY MANAGEMENT

Advanced Diploma

Paper-9

TICKETING

Instructional Hrs: 105

Sub. Code: 23ATH69

Max Marks CIA -25; ESE-75

Credits: 7

Unit - I

20 Hrs

Introduction to Tourism Industry - Functions of Travel Agency - IATA and its Functions its Memberships - PATA - ASTA - Description and Function and TAAI

Unit - II

20 Hrs

Transport Systems Air - Sea - Road - Railways - Travel Formalities and Regulations

Unit - III

25 Hrs

Ticketing Reservation Procedure for Airline - Modern Ticketing and Fare - Formulas for Air Fares - Fare Rules - Promotional Fares - Domestic and International Fare

Unit - IV

20 Hrs

Classification of Travel Agents – Forms of Organization – Organization of Travel Agency

Unit -V

20 Hrs

Railway Ticketing Procedure - Group Reservation - Ticketing for Senior Citizens

REFERENCE BOOKS

1. **Gidwani B.S.** *History of Air Transport*, Suneja Book Centre, New Delhi ,1954.
2. **Pran Nath Seth & Sushma Seth Bhat**, *An introduction to Travel and Tourism*, Sterling Publishers Private limited, New Delhi, 2007.
- 3 ABC World Wide Airways Guide (Red & Blue)
- 4 Air Tariff Book 1, World Wide Fares.
- 5 Air Tariff Book 1, World Wide Rules, Fares etc.
- 6 Air Tariff Book 1, World Wide Maximum Permitted Mileage
- 7 Travel Information Manual (Tim)
- 8 IATA Ticketing Hand Book.

Vellalar College for Women (Autonomous), Erode-12
Post Graduate & Research Department of History
UGC Sponsored Career Oriented Programme
Certificate/ Diploma / Advanced Diploma
Courses on 'Tourism & Hospitality Management'

Question Paper pattern

I. Model Examination / ESE:

Time: 3 Hours

Max Marks: 75

Answer any FIVE out of eight questions in 600 words each: (5X15=75 marks)

II. Internal Assessment:

Internal Marks :25

- i. Continuous Assessment Test = 10 Marks
- ii. Model Examination = 10 Marks
- iii. Assignment = 5 Marks

25 Marks

Department of Mathematics
ADD On
Statistics for Data Science

Question Paper Pattern

Distribution of Marks

CIA	ESE	Maximum Marks
25	75	100

Components for Continuous Internal Assessment(CIA)

CIA I & II	Seminar/Assignment	Model Examination	Total
10	5	10	25

Question Paper Pattern for Theory

Assessment	Section	Choice	Marks	Total Marks
CIA I & II	A	OpenChoice (2 out of 3)	2x15=30	30
Model and ESE	A	OpenChoice (5 out of 8-Maximum of 2 questions from each unit)	5x15=75	75

Components of CIA Marks (Practical)

Tests (I & II)	Model Examination	Record	Total
10	10	5	25

End Semester Examination (Practical)

Choice	Marks	Total
Program 1	30	75
Program 2	35	
Record	10	

Course – I
23DSD21 - Principles of Statistics

Unit - I

Sample – Population –Collection of data and Data classification-Presentation of data through diagram and graphs(*Problems only*).

Unit - II

Mean - Median – Mode (*Problems only*).

Unit – III

Measures of Dispersion: Range – Quartile Deviation – Mean Deviation – Standard Deviation – Variance and Mean Square Deviation (*Problems only*).

Unit – IV

Statistical Hypothesis – Test of Significance – Null Hypothesis – Alternative Hypothesis – Types of Errors in Testing of Hypothesis – Level of Significance – Critical Region – One Tailed and Two Tailed Tests – Critical values or Significant Values.

Unit – V

Tests of Significance Based on t – test and F – test - One way Analysis of Variance.

Text Book

Sl. No.	Author Name	Title of the Book	Publisher	Year and Edition
1.	S.C. Gupta (I-IV Units)	Fundamentals of Statistics	Himalaya Publishing House	5 th Edition, Reprint 1997
2.	Dr. S.P. Gupta (V Unit)	Statistical Methods	Sultan Chand & Sons	31 st Edition, 2002

Unit	Chapter	Sections
I	2	2.1-2.1.4
	3	3.1 – 3.6
	4	4.1-4.4.3
II	5	5.3 – 5.8
III	6	6.4 – 6.9.3
IV	16	16.6-16.6.9
V	-	Sec 3(page no: 911 - 948) Sec 5(page no:1006 – 1015)

Reference Books

Sl. No.	Author Name	Title of the Book	Publisher	Year and Edition
1	Dr. Daryab Singh	Principles of Statistics	Atlantic Publishers and Distributors	2001, 1 st Edition
2	Christian Heumann – Michael Schomaker Shalabh	Introduction to Statistics and Data Analysis	Springer	2016

Course – II

23DSD22 -Basics of Data Visualization in R

Unit - I

Introduction – Installing R – Getting Started- Some information on R commands.

Unit - II

Special values- objects – Functions – Data frames.

Unit – III

Creating a Data frame – Common Data Frame Operations.

Unit – IV

Graphics: Introduction – Basic Plots – Labeling and Documenting Plots.

Unit – V

Analysis of Variance: One way ANOVA - F – test - T – Test.

Text Book

Sl. No.	Author Name	Title of the Book	Publisher	Year and Edition
1.	SandipRakshit	Statistics with R programming	McGraw Hill Education	2018

Unit	Chapter	Sections
I	1	1.1 to 1.4
II	1	1.5 to 1.7, 1.12
III	1	2.5 to 2.6
IV	4	6.1 to 6.3
V	5	9.5 to 9.7

Reference Books

Sl. No.	Author Name	Title of the Book	Publisher	Year and Edition
1	Roger D. Peng	R Programming for Data Science	Lean Publisher	2015
2	Robert Kabacoff	Data Visualization with R	Quantitative Analysis Center Wesleyan University	2020

Course III – Practical

23DSD2P - Data Exploration and Data Visualization in R

1. Write a program to create a Data frame, Access the components of a Data frame and modify the

Data frame in R.

2. Write a program to import data to R environment and export data from R.

3. Write a program to create different types of bar plot in R.

4. Write a program to create different types of histogram in R.

5. Write a program to create different types of box plot in R.

6. Write a program to determine the statistical difference between two data using T- test.

7. Write a program to compare variance of any two sample data from normal population using F-Test.

8. Write a program to determine the difference between various data using ANOVA table.

DEPARTMENT OF COMPUTER SCIENCE AND PHYSICS

CAREER ORIENTED PROGRAMME SPONSORED BY

UNIVERSITY GRANTS COMMISSION AT THE FIRST-DEGREE LEVEL CERTIFICATE (I YEAR) / DIPLOMA (II YEAR) / ADVANCED DIPLOMA (III YEAR)

INFORMATION AND COMMUNICATION TECHNOLOGY (ICT)

REGULATIONS

The objective of the programme as per the UGC is to introduce the career and market-oriented add-on Programme that has utility for jobs, self employment and empowerment of students. The Programme should be inter-disciplinary in nature and the students have the freedom to diversify into various fields.

As per UGC norms, students should be allowed to opt for Certificate/Diploma/Advanced Diploma Courses or three certificate courses or certificate and one diploma course during the period of study. To join diploma/advanced diploma courses, the students should have done the Certificate/Diploma course.

OBJECTIVE

The emergence of knowledge societies has seen the penetration of information and communication technology in all facets of human existence. New modes of communication are on the rise. India's communication scenario has witnessed massive change and what we see today is just the beginning of what mobile communication can achieve. A course in this expanding field will be essential and useful for all the students.

Scheme of Examinations

S. No.	Course	Paper Code	Subjects	Lecture Hours	Marks CE+CA	Exam Hours	Credits
1	Certificate	23AIC21	Paper I: Basic Telecommunication Systems(Phy)	100	75+25	3	6
		23AIC22	Paper II- Web Design (CS)	100	75+25	3	6
		23AIC2P	Practical I- Web Design Lab (Dream Weaver) (CS)	60	75+25	3	5
		23AIC2T	In House Training (Phy)	40	75+25(CA)	-	3

ADD ON COURSES (Extra Credit Courses)

Distribution of Marks

Courses	CIA	ESE	Maximum Marks
Theory	25	75	100
Practicals	25	75	100
Project	25	75	100

i) Components for Internal Assessment (Theory):

Components of CIA Marks (Theory)

Tests (I & II)	Assignment / Seminar / Subject Viva	Model Examination	Total
10	5	10	25

Question Paper Pattern:

	Section A	Total
CIA Test	2x15 = 30 marks (Open Choice - any TWO out of Three questions)	30
Model/ESE	5x15=75 marks(Open Choice-any FIVE out of Eight questions)	75

ii) Components for Internal Assessment (Practicals):

CIA Tests & Model Examination	Record	Skill/Viva	Total
16	5	4	25

Model/ESE pattern for Practical Examinations:

Maximum Marks	Practical	Record
75	65	10

iii) Components for In House Training

Maximum Marks	Training	Report/Viva Voce
100	75	25

UGC SPONSORED CAREER ORIENTED PROGRAMME
CERTIFICATE- INFORMATION AND COMMUNICATION TECHNOLOGY
PAPER I: BASIC TELECOMMUNICATION SYSTEMS

Instructional Hours : 100

Max. Marks: 100

Sub. Code: 23AIC21

CIA-25: ESE-75

Credits: 6

UNIT-I

Introduction to Communication Systems:

Introduction – Getting the message across - Basic Terminology used in Electronic Communication systems: Transducer, Signal, Noise, Amplification, Range, Repeaters – Electromagnetic spectrum – ELF to UHF.

UNIT - II

Elements of Communication Systems:

Block diagram of a communication systems - the transmitter – Radio transmitter – the channel – the receiver – the Superhetrodyne receiver.

UNIT – III

Analog Modulation and Demodulation:

Amplitude modulation – Principle – Theory – frequency spectrum – Frequency modulation - Principle - frequency spectrum – Phase Modulation - Principle

UNIT – IV

Television and Radar:

Principles of Black and White TV transmission and Reception (Block diagram-based Explanation) – RADAR – fundamental principles – function and applications.

UNIT – V

Microwave and Optical Fibre Communication:

Microwave links – Cellphones – Electronic Mobile Exchanges – Improving communication by Transmitters – Optical fibre communication (Block diagram-based explanation) – Introduction to satellite Communication

TEXT BOOKS

1. **Jim Jardine** “*Physics through Applications*”, Oxford University Press, 1989.
2. **Anokh Singh & Chobra A.K.**, “*Principles of Communication Engineering*”. S.Chand& Company, New Delhi 2013.

UGC SPONSORED CAREER ORIENTED PROGRAMME
CERTIFICATE- INFORMATION AND COMMUNICATION TECHNOLOGY
PAPER II - WEB DESIGN

Instructional Hours : 100

Max. Marks: 100

Sub. Code: 23AIC22

CIA-25: ESE-75

Credits: 6

UNIT I

Introduction to the Internet: Computers in Business – Networking – Internet – E-Mail – Resource Sharing – Gopher – WWW – Usenet – Telnet – Bulletin Board Service – Wide Area Information Service. **Internet Technologies:** Modem – Internet Addressing – Physical Connections – Telephone Lines. **Internet Browsers:** Internet Explorer – Netscape Navigator.

UNIT II

Introduction to HTML: Designing a Home Page – History of HTML – HTML Generations - HTML Documents – Anchor Tag – Hyper Links – Sample HTML Documents. **Head and Body Sections:** Header Sections – Title – Prologue – Links - Colorful Web Page – Comment Lines – Some Sample HTML Documents. **Designing the Body Section:** Heading Printing – Aligning the Headings – Horizontal Rule – Paragraph – Tab Setting – Image and Pictures – Embedding PNG Format Images.

UNIT III

Ordered and Unordered Lists: Lists - Unordered Lists – Headings in a List – Ordered Lists – Nested Lists. **Table Handling:** Tables – Table Creation in HTML – Width of the Table and Cells – Cells Spanning Multiple Rows/ Columns – Coloring Cells – Column Specification – Some Sample Tables.

UNIT IV

DHTML and Style Sheets: Defining Styles – Elements of Styles- Linking a Style Sheet to an HTML Document – In-Line Styles – External Style Sheets – Internal Style Sheets – Multiple Styles. **Frames:** Frameset Definition - Frame Definition – Nested Framesets.

UNIT V

A Web Page Design Project: Frameset Definition – Animals – Birds – Fish.

Forms: Action Attribute – Method Attribute – Enctype Attribute – Drop Down List – Sample Forms.

TEXT BOOK

C.Xavier, *World Wide Web Design with HTML*, McGraw Hill Education (India) PVT Ltd, New Delhi, 26th Reprint 2013.

REFERENCE BOOKS

1. **Deitel, Deitel & Neito**, *Internet and World Wide Web – How to Program*, Pearson Education, 2003.
2. **H.M.Deitel, P. J. Deitel, A.B. Goldberg**, *Internet and World Web: How to Program*, 3rd Edition, PHI, 2008.
3. **Thomas Powell**, *HTML: The Complete Reference*, TMH, 2nd Edition Reprint 2000.

UGC SPONSORED CAREER ORIENTED PROGRAMME
CERTIFICATE- INFORMATION AND COMMUNICATION TECHNOLOGY
PRACTICAL I - WEB DESIGN LAB (Dream Weaver)

Instructional Hours : 60

Max. Marks: 100

Sub. Code: 23AIC2P

CIA-25: ESE-75

Credits: 5

LIST OF PRACTICALS

1. Design a website for your college with index.html as a home page, link it with other pages of the site.
2. Create an ordered list, un-ordered list, definition list and some nested list. Change the text alignment, text style, text color in the page.
3. Design a home page for a company. Use separate frames for page heading, page navigation and main content.
4. Insert an image into a web page and use any five Dreamweaver's image editing tools. Use sharpen, cropping & brightness/contrast. Then perform image resizing and image re-sampling.
5. Insert a sound and movie file into a web page and create hyperlinks to the same.
6. Create a table with text in column 1 and numbers in column 2. Perform ascending and descending sorts on both the columns.
7. Design a company logo using layers by setting different properties for each layer.
8. Create a form to collect the user data of your choice. Format the form objects and labels with a table, so that they line up nicely. Place the submit and reset buttons in the bottom row of the table and merge the cells.

DEPARTMENT OF CHEMISTRY

PAPER-I

COSMETIC CHEMISTRY

Total Marks: 100

Internal : 25

External : 75

Subject Code: 24DCH21

Credits: 5

Objective: To develop the potential about the chemical conjugation with that of the daily used products and to have career in fast growing industry and chemistry based Entrepreneurship

UNIT-I

20 Hrs.

Personal Hygiene

- i) Preparation of Shampoos, Conditioner, Cream, Lotion, Talcum powder
- ii) Preparation of Handwash, Sanitizers, Tooth paste, Mouth wash

UNIT-II

20 Hrs.

Cosmetics

- i) Skin- Preparative methods of Astringent, Skin lightener, Depilators and Antiperspirants, Lipstick,
- ii) Scalp and Hair- Serum, Coloring/Dyeing agent, Antidandruff, Anti-hair fall shampoo
- iii) Perfumes- Classification and active ingredients, Antiperspirants, Deodorants, Body spray and their mode of usage

UNIT-III

20 Hrs

Shortcomings of Cosmetics

- i) Bleaching and its ingredients-Harmful effects on skin, hair, eye, hair
- ii) Health associated risks
- iii) Toxicology of Cosmetic chemicals

UNIT- IV

20 Hrs.

Soaps

- i) Soaps- Composition, Cleansing action, foaming agents, fragrance, pH level according to skin types- Formulation of Liquid soap
- ii) Preparation of Neem, Sandal and Aloe-vera soaps

UNIT-V

20 Hrs.

Detergents

- i) Detergents- Composition, Detergent action, Liquid detergents
- ii) Preparation of Biodegradable Detergents, Phenoyl, Soap oil

REFERENCE BOOKS

1. Perry Romanowsky, Beginning Cosmetic Chemistry, 3rd Edition, Allured Publishing Corporation, January 1, 2009.
2. Kunio Shimada and Hiroshi Iwata, Formula Ingredients and Production of cosmetics, Springer, October 3, 2012.
3. B.K.Sharma, Industrial Chemistry, Any Books, January 1, 2020.
4. Soaps and Detergents books, 2nd Edition, The Soaps and Detergents Association, 1994.

PAPER-II

CHEMISTRY IN FOOD AND AGRICULTURE

Total Marks: 100

Subject Code: 24DCH22

Internal : 25

Credits: 5

External : 75

Objective: To understand the chemistry involved in food and agricultural aspects so as to adopt themselves to jobs like Food Processing and Agro Product Industries.

UNIT I

20 Hrs.

Food Adulterants

- i) Sources- Types- Constituents of Foods- Carbohydrate, Protein, Fats and Oils, Colours, Flavours, Natural Toxicants.
- ii) Food Poisoning: Sources, Causes and Remedy.
- iii) Food Adulterants: Intentional, Unintentional – Common Adulterants in Food- Detection of Food Adulterants - Coffee Powder, Asafoetida, Chilli Powder, Turmeric Powder, Coriander Powder and Pulses

UNIT II

20 Hrs.

Food Preservation and Additives

- i) Food Preservation and Processing by Heating- Sterilisation-Pasteurization- Food Preservatives- Baking Powder- Yeast.
- ii) Food Sweeteners- Saccharin, Cyclamate, Aspartame- Food Flavours- Esters, Aldehydes, Monosodium Glutamate- Food colorants/ Dyes- Yellow aniline, Metanil Yellow, Alanine (Synthesis excluded)

UNIT III

20 Hrs.

Soil Chemistry

- i) Definition of Soil – Formation of Soil - Soil Texture - Soil Structure - Soil Colour - Soil Water - Soil Air - Soil Temperature
- ii) Nature of Soil- Soil pH – Acidity – Alkalinity - Buffering of Soils and its Effects on the Availability of N – P – K – Ca – Mg - I - Al - Mn - Soil Salinity – Acid and Alkaline Soils – Their Formation and Reclamation.

UNIT IV

20 Hrs.

Manures and Fertilizers

- i) Manures: Types - Composition - Value - Sources - Green Manures – Oilcakes - Sewage Sludge - Biogas Plant Slurry - Plant and animal wastes
- ii) Composting of Organic Wastes –Crop Residue Composting - Vermi Composting – Coir pith Composting - Method of Composting the Municipal Solid Wastes – Enriched Farm

- Yard Manure (EFYM - Preparation of Coir Waste Compost Using Yeast Sludge - Preparation of Sugarcane Trash Compost Using Yeast Sludge - General Properties of Commercially Accepted Compost
- iii) Fertilizers: Classification of Fertilizers - N, P and K Fertilizers - Controlled Release Fertilizers - Mixed Fertilizers – Advantages

UNIT V

20 Hrs.

Organic Farming

- i) Organic Farming- Need of Organic Farming-Types of Farming- Pure Organic Farming- Integrated Farming system- Advantages and Disadvantages of Organic Farming
- ii) Concept of different cropping systems in relation to Organic Farming- Role of Pesticides, Insecticides, Fungicides and Insecticides-Preparation of Natural Pesticides – Applications.

REFERENCE BOOKS:

1. Swaminathan M, Text Book on Food chemistry, Printing and Publishing Co., Ltd., Bangalore.
2. Sivasankar B, Food Processing and Preservation, PHI Learning (P) Ltd, New Delhi.
3. Srilakshmi B, Nutrition science, New Age International (P) Ltd, New Delhi.
4. Jain, P. C. and Jain, M. Engineering chemistry, Dhanpat rai and Sons: Delhi, 10th Edition, 1993
5. Sahai V.N., Fundamentals of Soil, Kalyani publishers, Ludhiana, 3rd Edition, 2004
6. Jayashree Ghosh, Fundamental Concepts of Applied Chemistry, S.Chand & Company Ltd., New Delhi.
7. Bagavathi Sundari K, Applied chemistry, MJP Publisher.

PRACTICAL / INDUSTRIAL & FIELD TRAINING
PREPARATION OF COSMETICS

Max.Marks: 100

Internal : 25

External : 75

Subject Code: 24DCH2P

Credits: 10

I. Preparations:

- 1) Preparation of Neem/Aloe-Vera Soaps
- 2) Preparation of Soap oil
- 3) Preparation of Sanitizers
- 4) Preparation of Phenoyl liquid
- 5) Identification of adulterants in some common food items like coffee powder, asafoetida, chilli powder, turmeric powder, coriander powder and pulses, etc.
- 6) Determination of Soil pH
- 7) Preparation of Organic manure
- 8) Preparation of Coir pith

II Industrial and Field Training

DEPARTMENT OF CHEMISTRY

B.Sc., Chemistry

Question Paper Pattern for Certificate Course

COURSE TITLE: ENTREPRENEURSHIP IN CHEMISTRY

Time: Three Hours

Maximum: 75 Marks

Answer **Five** Questions out of Eight

(5 x 15 = 75 Marks)

Each question carries 15 Marks (At least One Question from Each Unit)

Question Number 1) to 8)

SCHEME OF VALUATION FOR PRACTICAL/ INDUSTRIAL & FIELD TRAINING

PRACTICAL/ INDUSTRIAL & FIELD TRAINING: 100 Marks

Internal: 25

External: 75

ADD-ON
2023-2024

BOTANY

Changes made in the syllabus for the Academic year 2023-24

- * Papers I & II
- * Practical I

VELLALAR COLLEGE FOR WOMEN (AUTONOMOUS), ERODE - 12

PG AND RESEARCH DEPARTMENT OF BOTANY

CAREER ORIENTED PROGRAMME

SPONSORED BY UNIVERSITY GRANTS COMMISSION (UGC)

ADD ON - CERTIFICATE COURSE

BIODEGRADABLE SOLID WASTE MANAGEMENT

S.No	Course	Subject Code	Subject	Lecture Hours	Exam Hours	Max.Marks*			Credits	
						CIA	ESE	Total		
1.	Certificate (1 st year)	23ABW21	PAPER- I Introduction to Environment	100	3	25	75	100	5	20
		23ABW22	PAPER –II Waste Management	100	3	25	75	100	5	
		23ABW2P	PARCTICAL - I	60	3	25	75	100	5	
		23ABW2T	Industrial Training	40			100	100	5	

* Includes 50% Internal Assessment Marks - Practicals

* Includes 50% Internal Assessment Marks - Theory

PG AND RESEARCH DEPARTMENT OF BOTANY
CAREER ORIENTED PROGRAMME
SPONSORED BY UNIVERSITY GRANTS COMMISSION (UGC)

ADD – ON CERTIFICATE COURSE

BIODEGRADABLE SOLID WASTE MANAGEMENT

PAPER –I

INTRODUCTION TO ENVIRONMENT

Instructional Hrs.: 100

Sub. Code: 23ABW21

Max. Marks : CIA – 25; ESE - 75

Credits : 5

Objectives: To discern the importance of biological diversity and pollution control. To study the conservation of natural resources

UNIT – I

Environmental studies - definition – scope and importance - classification – aim of environmental study- formal and informal education- man and environment.

UNIT – II

Environment: Basic components - Ecological factors - Ecosystem: Structure- Components and function- Energy flow in Ecosystem – Ecological Pyramids.

UNIT – III

Biogeochemical cycles – Hydrological cycle –Gaseous cycle- oxygen – carbon – nitrogen- Sedimentary cycle – sulphur - phosphorus.

UNIT –IV

Natural resources: Renewable and Non- Renewable Resources – Conservation - Soil Conservation- Major causes of deforestation - Forest Conservation.

UNIT - V

Biodiversity - Importance and biodiversity in India- Reduction in Biological diversity- Present situation-Major causes of reduction in Biological diversity – Conservation of Biodiversity.

Practicals - I:

Paper - I:

1. Determination of soil pH
2. Preparation of Medium – PDA Medium, Rose Bengal Agar Medium
3. Microbial analysis of Air – Bacteria and Fungi
4. Microbial analysis of Soil – Bacteria and Fungi
5. Estimation of Dissolved Oxygen (DO) in water

REFERENCE BOOKS:

1. **Sharma P.D.**, “*Ecology and Environment*”, Rastogi Publications, Meerut, Eleventh Edition, 2005.
2. **Shukla, R.S and Chandel,P.S.**, “*Plant Ecology and Soil science*”,S.Chand & company Ltd. New Delhi, 2003.
3. **Professor Ranganathan, S., et al.**, “*Environmental studies* ”, Publication Division, Bharathiar University, Coimbatore, First Edition, 2004.
4. **Vasishta. P.C.**, “*A text book of Plant Ecology*”, Vishal Publications, NewDelhi, Second Edition, 1979.
5. **Verma, P.S. and Agarwal,V.K.**, “*Environmental Biology*”, S. Chand & Company Ltd, New Delhi, Fourth edition,1993.
6. **Dwivedi, P.** “*Environmental Pollution and Environmental Management*”, Scientific publishers, Jodhpur(India), 2004.
7. **Asthana, D.K. and MeeraAsthana.** “*Environment: Problems and solutions*”, First edition, S. Chand and Company Ltd., 1998.

Add on Courses Question Paper Pattern

Choice	Marks	Total
Open Choice (5 out of 8)	5x15= 75	75

PAPER – II
WASTE MANAGEMENT

Instructional Hrs. : 100

Sub. Code: 23ABW22

Max. Marks : CIA – 25; ESE - 75

Credits : 5

Objectives: To study the methods used in recycling of solid waste. To study the importance of organic manuring and vermicomposting

UNIT – I

Solid waste – Definition - Classification – Biodegradable and non biodegradable – Management of solid waste – Landfill- Composting- Incineration- Recycling- Pyrolysis- Reuse.

UNIT – II

Agrowaste - Definition - Management of agrowaste - Composting agrowaste – Various methods - Composting Organisms- Biogas production.

UNIT- III

Hospital waste – Sources- types- methods of disposal and management- Biomedical waste – Collection - Classification – segregation - disposal – Composting and incineration.

UNIT – IV

Industrial waste –Nuclear wastes - disposal of radioactive wastes – hazards - Treatment of industrial effluents – Distillery effluent- Paper effluent- Dye effluent.

UNIT – V

Vermitechnology – Earthworm for vermiculture - Principles and Management of Vermiculture - Methods of Earthworm production - Vermicomposting.

Practicals – I:

Paper - II

1. Effluent analysis (Paper/Dye) – pH, Total solids, Chloride
2. Sterilization techniques – Hot air oven, Autoclave
3. Morphology and identification of Earthworms – (*Eudrilus eugeniae*, *Eisenia foetida* and *Lampito mauritii*)
4. Microbial analysis of Vermicompost – Bacteria and Fungi
5. Analysis of Vermicompost – Nitrogen, Phosphorus, Potassium and Carbon

Industrial Training:

1. Hospital visit
2. Vermicomposting Techniques
3. Vermiwash preparations

REFERENCE BOOKS :

1. Purohit, S.S., Environmental pollution-Causes, Effects and Control, “*Agrobios*”, India, 2004.
2. Asthana, D.K. and MeeraAsthana.. “*Environment: Problems and solutions*”, First edition, S. Chand and Company Ltd., 1998.
3. Shukla, S.K. and P.R. Srivastava. “*Waste Management and Control*”, First edition, Commonwealth Publishers, New Delhi, 1992.
4. Palaniappan, S.P. and Annadurai, K. “*Organic farming theory and practice*”, Scientific Publishers, Jodhpur, India, 2003.
5. Sathe, T.V. “*Vermiculture and Organic farming*”, Daya Publishing Home, New Delhi, 2004.
6. Sakhatkar, B.M. “*Principles of hospital administration and planning*”, First Edition Published by Jaypee Brothers, 2003.

Add on Courses Question Paper Pattern

Choice	Marks	Total
Open Choice (5 out of 8)	5x15= 75	75

VELLALAR COLLEGE FOR WOMEN (AUTONOMOUS), ERODE -12

DEPARTMENT OF BOTANY

Add on Course – Biodegradable Solid Waste Management

Certificate Course Practical – I

Sub. Code : 23ABW2P

Time -3 Hrs

Max. Marks: 75

- I. Estimate the amount of Dissolved oxygen present in the given sample A. 20**
- II. Estimate the amount of total solids present in the given sample B. 15**
- III. Identify and comment on the given spotters C, D, E, F & G. 5 x 6 = 30**

65

Record **10**

Total **75**

DEPARTMENT OF PHYSICS
&
DEPARTMENT OF ZOOLOGY
UGC SPONSORED CAREER ORIENTED PROGRAMME
BIOMEDICAL INSTRUMENTATION – CERTIFICATE COURSE
PAPER-I BIOMEDICAL INSTRUMENTATION

Instructional Hrs.: 100

Sub. Code: 23AB122

Max. Marks: CIA-25; ESE-75

Credits: 6

Objectives: To understand the principles and working mechanism of instruments used in the field of medicine.

UNIT-I

20 Hrs

Human Physiological Systems: Introduction - Nature of cancer cells - Resting and Action Potentials - Bio-Electric Potentials- Different system of Human body.

UNIT-II

20 Hrs

Bio-Potentials Recorders: Introduction- Components of Biomedical instrument systems- Electrodes-Half cell potentials- Types of Electrodes- Metal Micro electrodes-Chemical electrodes- pH electrodes-pCO₂ electrodes- pO₂ electrodes.

UNIT-III

20 Hrs

Transducers: Magnetic induction type - Piezo electric type - Thermo electric Type - Photovoltaic type- Capacitive transducers.

Diathermic Equipments: Introduction - Surgical diathermy- Ultrasonic diathermy

UNIT-IV

20 Hrs

Specialised Medical Equipments: Introduction - Blood cell counter - Photometer and Calorimeters- Filter Photometer- Spectrophotometer- Filter fluorometer- Chromatography.

UNIT-V

20 Hrs

Advances In Biomedical Instrumentation: Introduction - Computers in Medicine- Laser in Medicine- Endoscopes- Computer Tomography (CT) - Magnetic resonance imaging (MRI).

REFERENCE BOOKS:

1. Biomedical Instrumentation- Dr. M. Arumugam, Anuradha Agencies, Publishers.
2. Medical and Clinical Engineering- B. Jacobson and J. G. Webster.
3. Biomedical Instrumentation and Measurements- Leslie Cromwell, Fred J. Weibell, Enrich A. Pfeiffer, Prentice Hall of India Pvt.Ltd.
4. Medical Physics and Physiological Measurements- B. H. Brown, R.H. Smallwood, Blackwell Scientific Publications.
5. Biomedical Instrumentation by R. S. Khandpur.

**UGC SPONSORED CAREER ORIENTED PROGRAMME
BIOMEDICAL INSTRUMENTATION – CERTIFICATE COURSE**

PAPER II -PATHOLOGY AND CLINICAL LABORATORY TECHNOLOGY

Instructional Hrs.: 100

Sub. Code: 23AB122

Max. Marks: CIA-25; ESE-75

Credits: 6

Objectives: To understand the principles and applications of clinical equipments, to evaluate the laboratory data and to interpret the clinical significance.

UNIT I

20 Hrs

Prerequisites of a clinical laboratory: Maintenance of records and preparation of reports - Cleaning, maintenance and care of glass wares - Safety precautions and first aid in the clinical laboratory - Sterilization - Physical and Chemical methods - Disposal of specimen and infected materials.

UNIT II

20 Hrs

Laboratory Instruments: Description and uses of Microscope - Centrifuge - Autoclave - Incubator - Haemoglobinometer - Albuminometer - Folin-Wu sugar tube - Serological Water bath - Hot air oven.

UNIT III

20 Hrs

Clinical Haematology: Collection of blood specimens - ABO grouping techniques - Rh grouping - Total RBC Count - Total WBC Count. Haemoglobin estimation- Sahli's method. Clotting time and Bleeding time.

UNIT IV**20 Hrs**

Urine Analysis: Collection and preservation of urine for analysis - Physical examination of urine. Chemical examination of urine - Detection of glucose (Benedict's test) - Protein (Boiling test) – Blood (Benzidine test) - Bilirubin (Fauchet test) – Urobilinogen (Ehrlich's test) - Bile Salt (Hay's test). Microscopic examination of organized and unorganized deposits of urine.

UNIT V**20 Hrs**

Faecal Examination: Physical and microscopic examination of faeces- Testing faeces for occult blood (Benzidine test). Laboratory diagnosis of the helminthes- Direct smear examination and Flotation Method. Examination for ova, cyst and adult Helminthes worms (Ascaris lumbricoides and Taenia solium).

Sputum Examination: Collection of sputum. Physical and microscopic examination of sputum.

REFERENCE BOOKS

S. No	Authors	Title of the Book	Publishers	Year of Publication
1	Kanai L. Mukherjee	Medical Laboratory Technology, vol I, II, III	Tata McGraw-Hill Education, New Delhi.	2010
2	Sach Dev.K.N.	Clinical pathology and Bacteriology	Jaypee Brothers Medical Publishers, New Delhi	2000
3	Talib V.H.	Hand Book of Medical Laboratory Technology	CBS Publishing company, New Delhi	2012
4	Ramnik Sood	Haematology	Jaypee brothers Medical Publishers, New Delhi	2010
5	Samuel	Notes on Clinical laboratory Techniques	M.K.G. Iyer & Sons, Madras	2011

UGC SPONSERED CAREER ORIENTED PROGRAMME
BIOMEDICAL INSTRUMENTATION CERTIFICATE COURSE
PRACTICAL-I

Instructional Hrs.: 60

Sub. Code: 23ABI2P

Max. Marks: CIA-25; ESE-75

Credits: 4

1. ABO and Rh grouping
2. RBC Total Count
3. WBC Total Count
4. Haemoglobin Estimation
5. Bleeding time of Blood
6. Clotting time of Blood
7. Albumin in urine
8. Glucose in urine
9. Blood in urine
10. Bile salts in urine
11. Urobilinogen in urine

SPOTTERS

Light Microscope, Autoclave, Incubator, Hot air oven, Serological water bath, Centrifuge, Haemoglobinometer, Haemocytometer, Albuminometer, Urinometer, Folin Wu tube, Anti sera A, B & D, Ascaris lumbricoides, Taenia solium

	Section A	Total
CIA Test	2x15 = 30 marks (Open Choice - any TWO out of Three questions)	30
Model/ESE	5x15=75 marks(Open Choice-any FIVE out of Eight questions)	75

**Add on
course**

(Extra Credit Course) – BIOMEDICAL INSTRUMENTATION

Question Paper Pattern:

Distribution of Marks

Courses	CIA	ESE	Maximum Marks
Theory and Practical	25	75	100

i) Components for Internal Assessment (Theory):

CIA Tests (I & II)	Model Examination	Seminar/Assignment	Total
10	10	5	25

ii) Components for Internal Assessment (Practicals):

Lab Work	Test	Model Examination	Record	Total
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5	5	10	5	25
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Model/ESE pattern for Practical Examinations:

Practical	Record	Total
65	10	75

iii) Inhouse/ Industrial Training:

Training	Report	Total
75	25	100

DEPARTMENT OF NUTRITION & DIETETICS

CERTIFICATE COURSE IN NUTRITION IN HEALTH CARE MANAGEMENT

CODE	COURSE
23DND21	Health Care Management System

Category	CIA	ESE	L	T	P	Credit
Add on Certificate Course	25	75	70	5	--	5

Class	I B.Sc
Course Objectives	<p>The Course aims to produce competent graduates in acquiring</p> <p>A. Knowledge on</p> <ol style="list-style-type: none"> 1. Planning a modern hospital 2. Responsibilities of Hospital committees 3. Gaining insight of legal aspects of health care and hospital management and accreditation 4. Maintenance of medical records <p>B. Skills in</p> <ol style="list-style-type: none"> 1. Identifying current issues in Health care 2. Integrating the services of Health care Personnels <p>C. Attitude to</p> <ol style="list-style-type: none"> 1. Observe and appreciate Hospital service co ordination among Health care personnels

SYLLABUS

UNIT	Content	No. of Hours
I	Functions of Hospitals, Role of health services in improving health, Principles of Health service management, Health Insurance; Health Policy Medical Records - Characteristics, functions, components Technology advancement – EMR, Microfilming and smart cards.	15 hrs

<p align="center">II</p>	<p>Hospital Committees-Medical Ethics and Legality Legal Aspects of Health Care – Patient and Consumer Protection Act, 1986; RTI 2005; Biomedical waste Management and Handling Rules, 1998, Biomedical waste management – types of waste, health hazard, color coding, disposal of waste; Quality Assurance for Health care- Accreditation-Definition, Advantages, list of organizations – ISO, JCI, NABH</p>	<p align="center">15 hrs</p>
<p align="center">III</p>	<p>Common Health Problems in Developed & Developing Countries, Social Health problems- smoking, alcoholism, drug addiction. Role of genetics in health and disease, Health economics.</p>	<p align="center">15 hrs</p>
<p align="center">IV</p>	<p>Trends in Healthcare – e-skills for health care, Telemedicine; Health Tourism. Dietary department in Health Care services, Objectives and Functional activities of dietary department, Nutritional Intervention.</p>	<p align="center">15 hrs</p>
<p align="center">V</p>	<p>Health System in India- Health care and concept, Alternative systems of medicine- Ayurveda, Homeopathy, Naturopathy, Siddha, Unanai, Holistic approach for health. .</p>	<p align="center">15 hrs</p>
<p>References</p>	<p>Text Books</p> <ol style="list-style-type: none"> 1. Sharma DK and Goyal RC, Hospital Administration and Human Resource Management, PHI Learning Private Limited, New Delhi, Fifth Edition, 2010. 2. Syed Amin Tabish, Hospital and Health Services Administration – Principles and Practice, Oxford University Press, New York, Fourth Edition, 2011. <p>Reference Books</p> <ol style="list-style-type: none"> 1. Kieran Walshe and Judith Smith, Health Care Management, Tata McGraw Hill Education Private Limited, New Delhi, First Edition, 2010. 2. Srinivasan AV, Managing a Modern Hospital, Response Books, New Delhi, Second Edition, 2008. 3. Joydeep Das Gupta, Hospital Administration and Management – A Comprehensive Guide, Jaypee Brothers Medical Publishers (P) Ltd, New Delhi, First Edition, 2009. 4. Stephen P. Robbins and Mary Coulter, 	<p align="center">Unit I - V</p>

	<p>Management, 2009, II edition, Prentice Hall of India Pvt. Ltd., New Delhi</p> <p>5. Elaine La Monica, Management in Health Care, 2005, II edition, Macmillan Press Ltd, London</p> <p>6. Rodney M.Coe, 1970, Sociology of Medicine, McGraw Hill, Inc.</p> <p>7. Rosalie Rebollo Pratt Ruth Lubbers, Hospital arts: a sound approach, 1997, I edition, Barcelona Publishers, New York.</p> <p>8. Frank M. Pierson MA PT, Sheryl L. Fairchild BS PT, 2005, II edition, Principles and techniques of patient care, Saunders Elsevier, UK</p> <p>9. Stephen M. Short ell, Arnold D. Kaluzny, 2006, V edition, Health care management: organization design and behavior, Thomson Delmar Learning, New York.</p>	
Course Outcomes	<p>On completion of the course, students should be able to do</p> <p>CO1:Gain insight of both clinical and non clinical services in a Hospital</p> <p>CO2:Understand medical coding in hospital statistics</p> <p>CO3:Indulge in identifying effective patient care in enhancing the satisfaction level of patients in hospitals</p> <p>CO4: Provide attention to current issues in Health care</p>	

Web Resources

- <https://www.pwc.com/gx/en/industries/healthcare/emerging-trends-pwc-healthcare.html>
- <https://www.aiims.edu/images/pdf/BMW-Book%20final.pdf>
- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1297513/>

Components of CIA Marks

CIA Tests I & II	Assignment/ Seminar/ Subject Viva	Model Examination	Total
10	5	10	25

Question Paper Pattern for CIA Tests-Theory

2 x15 =30 Marks (Open choice –any two out of three questions)	30
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Question Paper Pattern for Model and End Semester Examination

5 x15 =75 Marks (Open choice –any five out of eight questions)		75
CODE	COURSE	
23DND22	Nutrition in Clinical Care	

Category	CIA	ESE	L	T	P	Credit
Add on	25	75	70	5	--	5
Classificate Course				I B.Sc		
Course Objectives	<p>The Course aims to produce competent graduates in acquiring</p> <p>A. Knowledge on</p> <ol style="list-style-type: none"> 5. Role of nutrients in health and various clinical conditions 6. Nutritional assessment, RDA and Dietary Guidelines. 7. Risk factors for degenerative diseases and the management of the several disease conditions. <p>B. Skills in</p> <ol style="list-style-type: none"> 3. Assessing the nutritional status of the patients 4. Recognizing the disease condition based on their symptoms and nutritional status 5. Planning menu according to diseases condition <p>C. Attitude to</p> <ol style="list-style-type: none"> 1. Become a dietitian in hospitals 					

SYLLABUS

UNIT	Content	No. of Hours
I	<p>Basic Concepts Of Nutrition</p> <p>Introduction to nutrition, role of nutrition in clinical care, Food as source of nutrition, functions of food, definition of health and malnutrition.</p> <p>Food guide - Basic five food groups, food pyramid and food plate, principles of menu planning and calculation of nutritive value.</p> <p>Reference man and reference woman.</p>	15hrs
II	<p>Role of Nutrients in Health</p> <p>Macronutrients – Carbohydrate, Protein and Fat, Micronutrients – Vitamins – Fat and water soluble, Minerals - Calcium, Iron & Iodine - functions, sources, RDA and deficiency diseases</p> <p>Objectives and Principles of therapeutic diets, types –Liquid, soft, bland, light and regular diet, enteral and parenteral feeding</p>	15hrs
	<p>Nutritional Assessment</p> <p>Direct methods: clinical, anthropometry, biochemical and biophysical</p>	15hrs

III	Indirect methods: Vital statistics and Diet survey - need and importance, merits and demerits.	
IV	Role of Nutritional Care in Lifestyle Disorders Etiology, symptoms, diagnosis and diet therapy for weight management, cardio vascular diseases (Atherosclerosis, Blood Pressure and Angina Pectoris), diabetes mellitus and Gastrointestinal Disorders	15hrs
V	Role of Nutritional Care in Communicable Diseases Etiology, symptoms, diagnosis and diet therapy for febrile conditions - Common Cold, Typhoid, Tuberculosis, COVID, Diarrhea and Dysentery	15hrs
References	<p>Text Books</p> <ol style="list-style-type: none"> 1. B.Srilakshmi (2016), Dietetics, 7th Edition, New Age Publication. 2. B. Srilakshmi(2018), Nutrition Science, 6th Edition, New age Publication. 3. L. Kathleen Mahan and Sylvia Escott Stump (2007), Krause’s Food Nutrition andDiet Therapy, 12th Edition, W. B Saunders & Co. <p>Reference Books</p> <ol style="list-style-type: none"> 1. Krause’s &Mahan(1972), Food and Nutrition Therapy 12th Edition, W. B Saunders and company. 2. Davidson &Passmore(1986), Human Nutrition and dietetics- 6th Edition, Mcgraw Hill pub, New york. 3. Corinne H. Robinson (1986), Normal and Therapeutic Nutrition- 7th Edition, CollierMacmillian, New york. 4. Swaminathan. M (2003) Essential of food and Nutrition-Vol-II, 2nd Edition, Bangalore Printing and Publishing Co. Ltd. Bangalore. 5. Shubhangini. A. Joshi (2016), Nutrition and Dietetics, 4th Edition, Tata McGraw – Hill Publishing Company Ltd 6. Brian A. Fox Allan G. Cameron and Michael EJ Lean (2006), Food Science, Nutrition and Health, 7th Edition, British Library Cataloguing in Publication Data 7. Peggy S.Stanfield and Hui.Y.H (2009), Nutrition and Diet Therapy, 5th Edition, Jones and Bart left Publishers, Boston-London 	Unit I - V
Course Outcomes	<p>On completion of the course, students should be able to do</p> <p>CO1:Apply the knowledge of food and nutrition in day to –day life to lead a healthy lifestyle.</p> <p>CO2: Assess the nutritional status and identify the factors affecting it</p> <p>CO3:Plan diet according to the disease condition and calculate the adequacy of nutrients in the planned diets to maintain health.</p> <p>CO4 : Modify normal diet for therapeutic purposes and provide nutritional</p>	

counseling

Web Resources:

- <https://www.studocu.com/row/document/egerton-university/food-nutrition-and-dietetics/diet-therapy-i-lecturer-notes-tailored-to-first-year-students-pursuing-bachelor-of-science/5294775>
- https://cbseacademic.nic.in/web_material/Curriculum20/publication/srsec/834_food%20nutrition%20-%20xii.pdf
- https://www.im4change.org/upload/files/RDA_short_report%281%29.pdf
- https://scholar.google.co.in/scholar?q=dietetics+research+articles&hl=en&as_sdt=0&as_vis=1&oi=scholart

Components of CIA Marks

CIA Tests I & II	Assignment/ Seminar/ Subject Viva	Model Examination	Total
10	5	10	25

Question Paper Pattern for CIA Tests-Theory

2 x15 =30 Marks (Open choice –any two out of three questions)	30
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Question Paper Pattern for Model and End Semester Examination

5 x15 =75 Marks (Open choice –any five out of eight questions)	75
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CODE	COURSE TITLE
23DND2P	Nutrition in Clinical Care Practical

Category	CIA	ESE	L	T	P	Credit
Add on Certificate Course	25	75	--	--	30	5

Syllabus

1. Food Groups
2. Designing My Plate-Food Plate and Food Pyramid
3. Types of Diet-Regular diet, Fluid diet, Soft diet
4. Assessment of Nutritional Status
 - i. Height
 - ii. Weight
 - iii. Hip Circumference
 - iv. Waist Hip Ratio
 - v. Calculating BMI-Broka's Index
 - vi. Dietary -24 Hour Recall
5. Diet for Fever
6. Diet for Underweight
7. Diet for Obesity
8. Diet for Diabetes Mellitus
9. Diet for Anemia
10. Diet for Hypertension
11. Visit to a Dietary Department in a Hospital

Components of CIA Marks

CIA Tests & Model Examination	Record	Skill/Viva	Total
10	5	10	25

Model and End Semester Examination

Maximum marks	Practical	Record
75	65	10

DEPARTMENT OF COMPUTER SCIENCE
CERTIFICATE COURSE: MULTIMEDIA
PAPER I: 23CMM01 - MULTIMEDIA BASICS

Instructional Hours :75

Credits: 5

CIA:25

ESE :75

UNIT I

Multimedia: An overview – Text.

UNIT II

Image: Introduction- Image types – Seeing color – Color models – Basic steps for Image processing – Scanner – Digital Camera – Specification of Digital Images – Color Management System (CMS) – Device independent color models – File formats – Image output on Monitor – Image output on Printer.

UNIT III

Animation: Introduction – uses of animation –Key Frames and Tweening – Types of animation – Creating movement – Principles of animation – Some techniques of animation – 3D animation – camera – Animation software – File Formats.

UNIT IV

Starting Photoshop CS2: The Photoshop Program window – working with Images: Image size – Editing Images – Color models.

UNIT V

Making Selection: The selection tools. Painting Drawing & Retouching tools: Painting Tools – The Drawing tools-layers.

TEXT BOOKS

1. **Ranjan Parekh***Principles of Multimedia*, The McGraw – Hill Companies 12th Reprint 2011. (Unit I, Unit II & III)
2. **Shalini Gupta & Adity Gupta**, *Photoshop CS2 in Simple Steps*, Dream teach Press, 1st edition, 2009 (Unit IV & V).

CERTIFICATE COURSE - MULTI MEDIA

PAPER II: 24CMM02 - ADVANCED MULTIMEDIA CONCEPTS

Instructional Hours : 75

Credits: 5

CIA:25

ESE:75

UNIT I

Audio: Fundamental Characteristics of sound – Elements of Audio System – Sound Card. **Video:** Digital Video – Video Editing – Video Editing Software.

UNIT II

Power point: Introduction to Power point – Understanding slide typecasting & viewing slides – creating slide shows. Applying special object – including objects & pictures –Slide transition– Animation effects, audio inclusion, timers. **Word Processing:** Open, Save and close word document; Editing text – tools, formatting, bullets; Spell Checker - Document formatting– Paragraph alignment, indentation, headers and footers, numbering; printing–Preview, options, merge.

UNIT III

Learning the Flash CS3 Professional Interface: The Start Page and Creating a Flash Document – Managing your Work Space – Using Layers. **Graphics in Flash CS3:** Drawing in Flash. **Audio in Flash:** Adding Audio to Flash.

UNIT IV

Action script Basics: Power of Action Script – Action Panel – Everything is an Object – Syntax.

UNIT V

Multimedia Application Development: Introduction- Software Life Cycle Overview - Story - Flow line – Script – Story Board – Implementation – Authoring Metaphors – Testing and Feedback – Final Delivery.

TEXT BOOKS

1. **Ranjan Parekh**, *Principles of Multimedia*, The McGraw – Hill Companies 12th Reprint 2011. (Unit I, & V)
2. **Tom Green & David Stiller**, *Foundation Flash CS3 For Designers*, Friends of ED, 1st edition, 2007 (Unit III and Unit IV)

REFERENCE BOOKS

1. **Jennifer Ackerman Kettel, Guy Hat-Davis, Curt Simmons**, —*Microsoft 2003*, Tata McGraw Hill.

CERTIFICATE COURSE: MULTIMEDIA
PRACTICAL PAPER:23CMM1P - MULTIMEDIA LAB

Instructional Hours : 30

Credits: 5

CIA:25 ESE :75

PHOTOSHOP

1. Create an Invitation using various text effects
2. Merge Images using layer palette
3. Apply different filter and color option for an image

FLASH

4. Design few shapes using line, circle and rectangle in different layers and create animation of these shapes using motion tween
5. Create a scene like a sea with few fishes and animate the fishes
6. Create an animation using Morphology

3D MAX

7. Perform ball bouncing using Simple Animation
8. Animating objects using Rendering effects

SOUND FORGE

9. Create a sound file with mixing of 2 songs
10. Create various effects for a sound file

PG & RESEARCH DEPARTMENT OF COMMERCE (AIDED)

Career Oriented Programme Sponsored by University								
Grants Commission (UGC) At the First Degree Level								
2023-2024 onwards								
Course Contents, Scheme of Examinations and Credits								
Banking Management								
Certificate (I Year)								
Course	Subject Code	Title of the Paper	Inst. Hrs	Exam. Dur. Hrs.	Max. Marks			Credits
					CIA	ESE	Total	
Certificate Course (I Year)	23ABM21	Elements of Banking	90	3	25	75	100	5
	23ABM22	Banking Services	105	3	25	75	100	6
	23ABM23	Development Banking	105	3	25	75	100	6
	23ABM2T	Field Training	150	-	-	100	100	3

*80% for project and 20% for Viva-Voce, Group Project (5 members in a Group)

CERTIFICATE COURSE IN BANKING MANAGEMENT

PAPER 1 – ELEMENTS OF BANKING

Instruction Hrs: 90

Sub. Code: 23ABM21

Max.Marks: CIA - 25; ESE - 75

Credits: 5

Objectives:

- To enable the students understand the importance of banking in India and also how the banking system is operating.
- To make them familiar with RBI's credit control techniques and to know the importance of functioning in India.

Unit I **18**

Hrs.

Evolution and Development of Banking in India – Meaning and Definition of Banking – Features of Banking – Classification of Banks – Banking System – Unit Banking and Branch Banking – Banks and Economic Development.

Unit II **18**

Hrs.

Money Market – Importance – Constituents – Developed and Underdeveloped Money Market – Characteristics of Indian Money Market – Defects and Suggestions – Recent Reforms.

Unit III **18**

Hrs.

Social Control Over Banks – Nationalisation of Major Commercial Banks – Reasons for Nationalisation – Criticisms Against Nationalisation of the Banks – Role of Private Sector Banks in India.

Unit IV **18**

Hrs.

Management and Administration of RBI – Functions of RBI – Traditional Functions – Promotional Functions – Supervisory Functions – Methods of Credit Control.

Unit V **18**

Hrs.

Recent trends in Banking: Banknet – Automated Teller Machines (ATM) – Debit cards – Credit cards – Smart cards – Phone Banking – Net Banking or Internet Banking – Deposit Insurance Scheme – Gold Deposit Scheme.

Books for Reference:

- **Natarajan & Parameswaran**, Indian Banking, S.Chand & Company Ltd, New Delhi, 2004.
- **Shekhar.K.C**, Banking Theory & Practice, Vikas publishing house, New Delhi, 2001.
- **Sundram.K.P.M, Seth.M.L**, Money Banking Trade & Finance, Lakshmi Narain Agarwal, Delhi, 2008.

PAPER 2-BANKING SERVICES

Instruction Hours: 105

Sub. Code: 23ABM22

Max.Marks: CIA-25; ESE-75

Credits: 6

Objectives:

- To provide knowledge of various services other than banking provided by the banking sector.
- To make them aware the importance of these services for the industrial and commercial sector.

Unit I **21 Hrs.**

Agency services-Payment and Collection-Collection of Dividend and Interest Warrants-Postal Orders-Bank as Trustee, Executor, Administrator. **General Utility Services**-Safe Custody of Customer Valuables-Safe Custody of Deposits-Safe Deposit Vault.

Unit II **20 Hrs.**

Financial Services-Types and classification of financial services.

Venture Capital-Meaning and Definition-Features-Benefits of Venture Capital.

Unit III **22 Hrs.**

Leasing Finance-Types of Leasing –Advantages of Leasing.

Merchant Banking-Meaning and Definition-Objectives-Features of Merchant Banking-Assistance provided by the Merchant Bankers.

Unit IV **21 Hrs.**

Mutual Fund-Meaning and Definition-Features-Benefits.

Factoring-Features of Factoring-Types of Factoring-Advantages and Disadvantages of Factoring.

Unit V **21 Hrs.**

Customer Services-Customer Orientation-KYC policy-Objectives and key elements of KYC policy-Customer Identification Procedure-Ombudsman Scheme in Banking Services.

Books for Reference

- **Sundaram. K.P.M**, Money Banking & International Trade, Sultan Chand & Company Ltd, New Delhi,2004.
- **Suneja.H.R**, Merchant Banker, Himalaya Publishing House,Mumbai, 2003.
- **Tannan.M.L** ,Banking Law Practice In India, S.Chand & Company Ltd, New Delhi,1984.
- **Dr.S.Gurusamy**, Financial Services and Markets, Vijay Nicole Imprints Private Limited, Chennai 2004.
- **S. Natarajan, Dr.R.Parameswaran**, Indian Banking, S.Chand & Company Pvt. Ltd, New Delhi,2012.

PAPER 3 – DEVELOPMENT BANKING

Instruction Hrs : 105

Sub. Code: 23ABM23

Max. Marks : CIA -25; ESE – 75.

Credits: 6

Objectives:

- To highlight the functions and working of financial institutions engaged in industrial development.
- To outline the working of NABARD Bank and the assistance given to business.

Unit I

21 Hrs.

Industrial Finance Corporation of India(IFCI) – Resources – Functions – Working. State Financial Corporation's (SFCs) – Functions – Difference between SFC and IFCI – State Industrial Development Corporations (SIDCs) –Industrial Investment Bank of India (IIBI).

Unit II

22 Hrs.

Industrial Credit and Investment Corporation of India (ICICI) – Growth – Shipping Credit and Investment Company of India Ltd (SCICI Ltd). Industrial Development Bank of India (IDBI) – Functions – Operations – Recent Growth – Restructuring – Narasiman Committee (1991) on restructuring IDBI. Small Industries Development Bank of India (SIDBI) – Functions – Working.

Unit III

22 Hrs.

Investment Institutions – Unit Trust of India – Objectives – Operations - Advantages – Assessment –UTI in trouble – Causes for the failure. Other Investment Institutions – LIC – GIC. Specialised Financial Institutions – IFCI venture Capital Funds (IVCF) – Tourism Finance Corporation of India Ltd. (TFCI).

Unit IV

20 Hrs.

Co-operative Banking in India – types- Structure of Co-operative Bank – Difference between Co-operative Bank and Commercial bank. Regional Rural Bank(RRB) – objectives – functions.

Unit V

20 Hrs.

NABARD – Strategies of NABARD – Promotional Roles of NABARD – Functions – NABARD and Refinance Facilities – Criteria for Refinance. The Export – Import Bank of India – Capital Resources – Functions.

Books for Reference:

- **Natarajan.S & Dr.R.Parameswaran**, Indian Banking, S. Chand & Company Ltd., New Delhi, 2012.
- **Sundaram.K.P.M**, Money Banking trade & Finance, Sultanchand & Sons, New Delhi,2004.
- **Gupta.C.B & Srinivasan.N.B**, Enterprenurial Development, Sultan Chand & Company Ltd, New Delhi, 2005.