

### III Semester Skill Enhancement Courses

Mathematics Stream:

Computation using Excel / Basic Analytical Chemistry

Bio-Sciences Stream:

Medical Diagnostics / Basic Analytical Chemistry

Arts Stream:

Historical & Cultural Tourism in India / Rural Development

Commerce Stream:

Principles of Insurance

## Computation using Excel

2 Credits

**UNIT-I: UNDERSTANDING EXCEL:** Excel's Files, Ribbon and shortcut, Create a workbook, Enter data in a worksheet, Format a worksheet, Format numbers in a worksheet, Create an Excel table, Filter data by using an Auto filter, Sort data by using an AutoFilter. Essential worksheet Operations: Using Short cut keys, Key board shortcuts. Working with Cells and Ranges: Formatting Cells, Name Manager. Visualizing Data Using Conditional Formatting: Apply conditional formatting. Printing Your Work: Print a worksheet, Using Print Preview and other utilities

**UNIT-II: DATES AND TIMES & TEXT:** Working with Dates & Time, Creating Formulas that Manipulate text – Upper, Proper, Lower, Concatenate, Text to Column. Creating Formulas that Count, Sum, Subtotal. Create a formula, Use a function in a formula. Creating Formulas that Look up Values: VLookup, Hlookup, Match & index. Creating charts and Graphics. Chart the data, Creating Sparkline Graphics, Using Insert Tab utilities.

### Suggested Books:

1. Charts and Graphs Microsoft Excel 2013 – **Bill Felen – Pearson Publication.**
2. Statistics made simple do it yourself on PC – **KVS Sarma – 2<sup>nd</sup> Edition – PHI.**
3. Microsoft Office 2007- Essential Concepts and Techniques – **Shelly Cashman Vermaat – Cengage Learning.**
4. PC software Under Windows – **Puneet Kumar – Kalyani Publishers.**

## Basic Analytical Chemistry

2 Credits

### Unit I : Titrimetric Methods in Analysis

Introduction to Analytical Chemistry and its interdisciplinary nature, Definitions: Standard solutions, Equivalence Point, Indicators, End point, Titration General Aspects of: Primary standards, Desirable properties of standard solution. Volumetric calculations: Molarity, Normality, percentage concentration, parts per million, Neutralization Titration, Standard solution and acid-base indicators. Titration curve for strong acid-strong base Systematic equilibrium concentrations for SA-SB titration. Acid-Base indicators, colour change range of an indicator, Indicator error. Data Analysis: Analytical data evaluations: Errors, Accuracy and precision, Normal distribution curve, Mean and standard deviation.

### UNIT II: Water & Soil pollutant

Water pollution: Introduction. Classification of water pollutants, Sources of water pollution. Origin of waste water, Effect of water pollutants, Water analysis: colour, turbidity, total dissolved solids, conductivity, acidity, alkalinity, hardness (total, permanent, temporary, calcium and magnesium hardness), chlorides, sulfates, fluorides and Dissolved Oxygen. Drinking water standards, Composition of soil, Concept of pH and pH measurement, Determination of pH of soil & water samples.

#### Reference Books:

1. Fundamentals of Analytical Chemistry, 7th Edition by Skoog, West, Holler.
2. Quantitative Analysis 6th Edition - R.A. Day, Jr., A.L. Underwood.
3. Analytical Chemistry –Dr. Alka Gupta, Pragati Prakashan.
4. Analytical Chemistry : Principles, 2Ed –John H. Kennedy.
5. Analytical Chemistry –VIth Ed. Gary D. Christian.
6. Environmental Chemistry- *Anil Kumar De*, Arnab Kumar *De 7<sup>th</sup> Edition*
7. Vogel's Textbook of Quantitative Chemical Analysis- by G.H.Jeffery, J.Mendham, R.C.Denney, 5th edition, 1998.

#### Suggested Applications:

- a..Determination of Acetic acid in vinegar.
- b..Determination of Alkalinity of soda ash

#### Suggested Instrumental demonstrations:

- a. Estimation of Mn, Cr, Fluoride and Phosphates in water samples by Spectrophotometer

## Medical Diagnostics

2 Credits

### Unit I: Introduction to medical diagnostics, Diagnostic methods for analysis of blood and urine

- 1.1 Introduction to medical diagnostics and its importance
- 1.2 Blood composition, Leishman's staining, Platelet count using haemocytometer, Erythrocyte sedimentary Rate (ESR) ,packed cell volume(P.C.V)
- 1.3 Urine analysis Physical characteristics, abnormal constituents.

### Unit II: Non-infection , Infection diseases & Tumours

- 1.1 Non-infection diseases –causes, types, symptoms, complications, diagnosis and prevention of diabetes (type-I&II), Hypertension (Primary &secondary), testing of blood glucose using glucometer/ kit.
- 1.2 Infectious diseases- causes, types, symptoms complication, diagnosis and prevention of tuberculosis and hepatitis.
- 1.3 Tumours – Types (Benign) Malignant) , detection & metastasis.

### Suggested Readings:

1. Prakash, G.(2012). Lab Manual on Blood analysis and Medical Diagnostics. S. Chand and Co. Ltd., New Delhi.

## Historical & Cultural Tourism in India

2 Credits

**Unit-I:** Tourism – Concept and Meaning – Nature – Scope - Tourism as an Industry - Socio-Economic Impact of Tourism - History of Tourism Development in India - Promotional Strategies of Tourism - Tools of Publicity, Role of Films, Television, Press, Poster-display, Brochures, Role of Guides - Historical Tourism - Monuments, Religious and Secular - Historical Sites - Historical Events - Impact of Tourism Development on Protection and Conservation of Historical Monuments and Sites and Vice-Versa - Socio-Cultural Tourism: Fairs and Festivals of India - Performing Arts (Dance, Drama and Music) - Museums, Art - Galleries, Yoga and Health Centers - Indian Cuisine.

**Unit-II:** Eco-Tourism - Beaches, Hill-Resorts, Surf-Riding, Ballooning, Rafting, Gliding - Wild-life Sanctuaries - National Parks, Safaris, Mountaineering –Trekking – Skiing - Sports Tourism - Tourism in Telangana – Tourist Places - Tourism Handicrafts: Textiles – Metal Work, Stone and Wood Carvings, Furniture, Jewellery, Toys, Musical Instruments – Terracotta - Display and Sale of Handicrafts - Shops at Heritage Centers – Organizing Exhibitions – Duty Free Shops.

### Recommended Books:

1. Dallen, J. Timothy, Cultural Heritage and Tourism: An Introduction (Aspects of Tourism Texts), Channel View Publications, 2011.
2. INTACH, Heritage and Development: Recent Perspectives, Aryan Books International, 2012. K.R. Gupta, Concise Encyclopedia of India: (Places of Historical and Tourist Interest), 2010.
3. Melanie, K. Smith, Issues in Cultural Tourism Studies, Psychology Press, 2003.
4. P.N. Girija Prasad, Eco-Tourism and Its Development, Adhyayan Publishers, 2012.
5. S.P. Gupta & Lal Krishna (eds.), Cultural Tourism in India: Museums, Monuments and Arts, 2003.
6. V.K. Singh, Historical and Cultural Tourism in India, Aadi Publications, 2008.
7. Vaibhav Chauhan, Heritage Tourism: Territory Unexplored. Vanaja Uday, Cultural Tourism and Performing Arts of Andhra Pradesh: Prospects and Perspectives, Research India Press, 2012.
8. A.K. Bhatia, Tourism Development – Principles & Practices, Sterling Publishers, 2016.
9. Sampad Kumar, Swain & Jitendra Mohan Mishra, Principles and Practices in Tourism, OUP, 2011.
10. Indira, Tourism in Andhra Pradesh: Growth and Developments, 1956-2007, Research India Press, New Delhi, 2014.
11. D. Satyanarayana, Kotha Paryataka Sthalalu (Telugu).

## Rural Development

2 Credits

### Unit – I: Introduction of Rural Development:

Rural Development: - Meaning – Importance and objectives of Rural Development- Rural Economy of India: size and structure of Rural Economy - The characteristics of the Rural Sector - Role of Agricultural and Allied Sector- Role of the Non-Agricultural sub-sector-Education, Health, Sanitation, Rural Artisan– Nature of changes since Independence - Challenges and opportunities.

### Unit – II: Determinants & Approaches to Rural Development:

Determinants of Rural Development: Change in Output - Changes in the Utilization of Natural Resources – Employment, Capital, Technology and Industrial framework Approaches to Rural Development: C.D. Program - Intensive Agricultural Districts Program - S.F.D.A. and M F.A.L.A.- D.P.A.P. - D.D.P. - I.R.D.P., D.W.C.R.A. - S.G.S.Y., Self help groups in Rural Development, other programmes for Rural Development.

### **Suggested Readings:**

1. Katar Singh (1999), "Rural Development - principles policies and Management" Sage Publications, New Delhi.
2. I. Satyasundaram (1999) "Rural Development" Himalaya Publishing House, New Delhi.
3. Bhalla. G. S. (1994) "Economic Liberalization and Indian Agriculture" (Ed)
4. John Mellor and Gunvant Desai (1986) "Agricultural Change and Rural Poverty", Oxford University Press, Bombay.
5. NABARD (1999) "Review of working of Regional Rural Banks", Mumbai.
6. Ministry of Rural area and Employment "Programs for Change" Gol, New Delhi.
7. Plan Documents, Gol, New Delhi.

## I: PRINCIPLES OF INSURANCE

**Objectives:** The objectives of the course are to

- ✓ provide a basic understanding of the Insurance Mechanism
- ✓ identify the relationship between Insurers and their Customers and the importance of Insurance Contracts
- ✓ give an overview of major Life Insurance and General Insurance Products

### **UNIT I: Risk Management, Concept of Insurance, Business of Insurance, Insurance Market and Insurance Terminology**

Understanding of Risk—Types of Risks— Actual and Consequential Losses –Unexpected Eventualities—Loss Minimization Techniques – Basics, Evolution and Nature of Insurance – Concept of Pooling in Insurance – Different Classes of Insurance – Importance of Insurance – Management of Risk by Individuals – Management of Risk by Insurers – Fixing of Premiums – Reinsurance and its Importance for Insurers – Role of Insurance in Economic Development and Social Security – Constituents of Insurance Market – Operations of Insurance Companies – Operations of Intermediaries – Specialist Insurance Companies – Insurance Specialists – Role of Regulators and Other Bodies Connected with Insurance—Common Terms and specific terms in Insurance: Life and Non Life – Usage of Insurance Terms – Understanding Insurance Customers and their needs and behavior in purchase and claims— Importance of Customers – Customer Mindsets – Customer Satisfaction — Importance of Ethical Behavior

### **UNIT II: Insurance Customer, Insurance Products and Insurance Contracts**

*Life Insurance and General Insurance Products:* Risk of Dying Early – Risk of Living too Long – Products offered – Term Plans – Pure Endowment Plans – Combinations of Plans – Traditional Products – Linked Policies – Features of Annuities and Group Policies. *General Insurance Products:* Risks faced by Owner of Assets – Exposure to Perils – Features of Products Covering Fire and Allied Perils – Products covering Marine and Transit Risks – Products covering Financial Losses due to Accidents – Products covering Financial Losses due to Hospitalization – Products Covering Miscellaneous Risks. Insurance Contract Terms – Principles of Insurance: Principle of Insurable Interest, Principle of Indemnity, Principle of Subrogation, Principle of Contribution, Relevant Information Disclosure, Principle of utmost Good Faith, Relevance of Proximate Cause

### **Suggested Readings**

1. Principles of Insurance : Insurance Institute of India
2. Risk Management : Insurance Institute of India
3. Role of Insurance in Financial inclusion : Brinda Publishing House, Hyderabad

5. Insurance Theory and Practice

: Tripathi PHI