

## FIRST YEAR

## SEMESTER - I

### Paper – 1 : Principles of Management and Organisational Behaviour

#### Unit: 1

Introduction to management: Definition and scope of management – The scientific management theory – Classical organization school – The behavioral school – The human relations movement – Hawthorne experiment – McGregor's theory of X and Y – TQM – Deming's 85 – 15 rule TQM principles – Contingency theory – Management science school – Systems approach.

#### Unit: 2

Functions of Management: Planning – Organizing – Staffing – Directing – (Motivation – Communication – Leadership) – Controlling – All basic theories and styles.

#### Unit: 3

Leadership: Definition of leadership – leadership style – Continuum of leadership behavior – Managerial grid style-Life-Cycle or situational approach-Four systems of management leadership – leadership skills – Leadership activities in a hospital – Functions of a leader like communication – Human resource management – Net working.

#### Unit: 4

Individual Behavior: Personality – Learning – Attitudes – Perception – Motivation – Ability – Their relevance to organizational behaviors in hospital management – Group Behavior – Group dynamics – Group norms – Group cohesiveness – Their relevance to organizational behavior.

#### Unit: 5

Organizational Culture: Meaning, significance – Organizational climate – Implications on organization behavior – Organizational change – Need and nature – Causes of change – Resistance to change – Management of change in hospitals.

### REFERENCE BOOKS

1. Management – Stoner Freeman, Gilber, – Prentice Hall
2. Essentials of Management – Koontz, – Tata Mc Graw hill
3. Organizational Behaviour – Keith Devis, – Tata Mc Graw hill
4. Organizational Behaviour – Stephen Robbins, – Prentice Hall
5. Organisational Behaviour – Fred Luthans, – Tata Mc Graw hill

### Paper - 2 : Health Economics

#### Brief Content

Health Economics course has been designed to develop basic understanding and skill necessary to analyze issues and problems in utilization of health services from an economic perspective. Health sector consumes a large proportion of resources. As a consequence there are major economic issues involved, not only on whether this amount is right, but how best to spend it and on whom. Therefore this course becomes imperative to those who are policy makers, planners, and managers in the field of Healthcare. The course covers the basic theory of microeconomics in health care such as demand, supply, pricing; production, cost, competitive market equilibrium, monopoly and monopolistic market, etc.

### DETAIL CURRICULUM

## **Unit 1 : Introduction and Microeconomics Tools for Health Economics**

- Principles of Economics; Meaning, Relevance and its Application in Healthcare
- Production and Distribution of Healthcare
- Scarcity and Production Possibilities Curve and Tradeoffs
- Demand, Supply and Pricing System
- Market Equilibrium
- Elasticity of Demand and Supply
- Production Function, Isoquants, Isocosts, Law of Diminishing Returns
- Consumer Behaviour: Demand Curve, Utility Maximization, Indifference Curve Analysis

## **Unit 2 : Production and Cost of Healthcare**

- 2.1 Cost Function and Economies of Scale
- 2.2 Cost of delivering health services
- 2.3 Change in Technology / Technology Diffusion
- 2.4 Aging Population and Long-term Care
- 2.5 Asymmetric Information and Agency
- 2.6 Imperfect Agency and Supplier Induced Demand
- 2.7 Managed Care and Health Maintenance Organizations

## **Unit 3 : Market and Market Failure in Healthcare**

- 3.1 Market and how does it works
- 3.2 Market Mechanism in Healthcare
- 3.3 Public goods / Merit goods
- 3.4 Externalities / Spill over effect
- 3.5 Role of Government and Market in health
- 3.6 Preventive, Curative and Rehabilitative care

## **Unit 4 : Concepts of Costs and Economic Evaluation**

- 4.1 Financial Costs Vs Economics Costs (opportunity costs)
- 4.2 Direct, Indirect, Average, Marginal, Total and Unit Costs
- 4.3 Component of Costs : Fixed and Variable; Capital and Recurrent Costs
- 4.4 Issues to be considered in costs calculation
- 4.5 Costs to whom, cost classification, shadow pricing, costs apportion, NPV, discounting factor, IRR, cost recovery, BEP
- 4.6 Meaning, Importance and Basis of Economic Evaluation; Analytical techniques
- 4.7 Steps of Economics Analysis : Identification, Measurement and Valuation of costs and consequences
- 4.8 Forms of Economics Evaluation: Cost-minimization Analysis (CMA), Cost – Effectiveness Analysis (CEA), Health Outcomes; Disability Adjusted Life Years
- 4.9 Three general approaches to Monetary Valuation of Health Outcomes: human capital approach, revealed preference and contingent valuation; expected costs, expected benefits; net benefit;
- 4.10 Cost-Utility Analysis (CUA): Utility, value, preference; Quality Adjusted Life Years (QALY), Healthy Years Equivalent (HYE), C/U Ratio

## **Unit 5 : Health Planning and Priority Setting**

- 5.1 Approaches to Planning
- 5.2 Planning Cycle
- 5.3 Setting Priorities

## 5.4 Resources Allocation and Budgeting

### **Textbooks**

- 1 Sherman Folland, Allen C. Goodman and Miron Stano **The Economics of Health and Health Care** (Prentice-Hall Inc, New Jersey)
- 2 Michael Drummond and et al, **Methods for the Economics Evaluation of Health Care Programme** (Oxford University Press, Second Edition)

### **Reference**

- 3 Anne Mills and Lucy Gilson **Health Economics for Developing Countries : A Survival Kit** (London School of Hygiene and Tropical Disease)
- 4 Rexford E. Santerre and Stephen P. Neun, **Health Economics: Theories, Insights and Industry Studies** (The Dryden Press, Harcourt Brace & Co., Orlando)
- 5 Government of India, **Five Year Plans**  
**Paper – 3 : Hospital Administration**

### **Unit 1 : Management Concepts and Theories**

- 1.1 Management and Organizations
- 1.2 Management Role
- 1.3 Levels of Managers and Management Skills
- 1.4 Classical School
- 1.5 Behaviour School
- 1.6 Management Science School

### **Unit 2 : Management Functions and Process**

- 2.1 Planning
- 2.2 Organizing
- 2.3 Staffing
- 2.4 Directing
- 2.5 Controlling

### **Unit 3 : Services, Health and Hospitals**

- 3.1 Services, Classification of Service Organization, Characteristics, Challenges
- 3.2 History of Medicine, Healthcare Revolution, Health, Dimensions of Health, Indicators of Health
- 3.3 Types of Healthcare Organizations, Composition of Health Sector, Types of Care, Pyramidal Structure of Health Services, Hospitals, Types of Hospitals and Role of Hospital in Healthcare, Complexity of Hospital Organization.

### **Unit 4 : Hospital Management : Levels and Roles**

- 4.1 Governing Board, Executive Board and Advisory Board
- 4.2 CEO, Medical Administration, Nursing Administration and Hospital Administration
- 4.3 Middle Level Managers in Hospital and their Responsibilities

### **Unit 5 : Current Issues in Healthcare**

- 5.1 Accreditation

- 5.2 Tele health
- 5.3 Health Tourism
- 5.4 Health Insurance and Managed Care
- 5.5 Disaster Management
- 5.6 Hospital Wastes Management

### **Textbooks**

- 1 Stephen P. Robbins and Mary Coulter, **Management** (Prentice Hall of India Pvt. Ltd., New Delhi)
- 2 J.E. Park and K. Park, **Textbook of Preventive and Social Medicine** (M/S Banarsidas Bhanot Publishers, Jabalpur)
- 3 Elaine La Monica, **Management in Health Care** (Macmillan Press Ltd, London)

### **Reference**

- 4 B.M. Sakharkar, **Principles of Hospital Administration and Planning** (Jaypee Brothers Medical Publishers Pvt. Ltd., New Delhi)
- 5 C.M. Francis and et al., **Hospital Administration** (Jayapee Brothers Medical Publishers Pvt. Ltd., New Delhi)
- 6 S. Srinivasan (ed.), **Management Process in Health Care** (Voluntary Health Association of India, New Delhi)

## **Paper – 4 : Biostatistics & Operation Research**

### **Unit: 1**

Frequency distribution – Measures of central tendency- Arithmetic mean, Median, Mode, Percentiles – Geometric Mean – Harmonic mean – Measures of Dispersion – Range – Mean Deviation – Standard error-standard Deviation – Coefficient of Variation –Simple problems.

### **Unit: 2**

Methods of Sampling – types of population, sample size – sampling distribution and statistical inference – type I & II Errors.-Correlation and Regression – Scatter diagram- Correlation Coefficient–Test of significance-Chi square test.

### **Unit: 3**

Measurement of probability and Laws of probability for independent events – Conditional probability, Bayer’s theorem and application of probability – probability distribution – Binomial ,Poison, Normal “t”.

### **Unit: 4**

Introduction to operations research – Techniques of operations research – limitations of operations research – Queuing theory – Transportation Module – Simulation – Simple problems.

## **Unit: 5**

Network Models: PERT – CPM – PERT COST – resource allocation – float and slack – Simple problems.

### **REFERENCE BOOKS:**

Business Statistics – R.S.N. Pillai and B. Bagawathi  
Statistical Methods – Elhance  
Statistical Methods – S.P. Gupta  
Bio Statistics – Sundar Rao

### **Selected Readings:**

A review of Bio Statistics – Paul E Leaverton  
Bio Statistics – K. Visweswara Rao  
Operation Research – Kanthi Swarup, et. El.

## **Paper - 5 : Health Environment**

### **Unit 1: Demography**

- 1 Demographic Cycle
- 2 World Population Trend
- 3 Demographic Trends in India: Growth rate, Age Pyramid, Sex Ratio, Population Density, Family size, Urbanization, Literacy, and Life Expectancy

### **Unit 2 : Family Planning**

- 2.1 Fertility and Fertility Related Statistics
- 2.2 Family Planning
- 2.3 Population Policy
- 2.4 National Demographic Goals

### **Unit 3 : Epidemiology**

- 3.1 Concept of Disease
- 3.2 Epidemiological Triad
- 3.3 Concepts of Control and Prevention
- 3.4 Principles of Epidemiology: Components, Measurements, Prevalence and Incidence
- 3.5 Epidemiologic Methods: Descriptive, Analytical and Experimental Studies
- 3.6 Uses of Epidemiology

### **Unit 4 : Community Health**

- 4.1 Community Diagnosis and Treatment
- 4.2 Communicable and Non-communicable Diseases

### **Unit 5 : National and International Health**

- 5.1 National Health Programmes in India
- 5.2 International Health: WHO and Other United Nations Agencies

### **Textbooks**

- 1 K. Park, Textbook of Preventive and Social Medicine (M/S Banarsidas Bhanot Publishers, Jabalpur)
- 2 B.K. Mahajan and M.C. Gupta, Text Book of Prevention and Social Medicine (Jaypee Medical Publishers P. Ltd., New Delhi)

## Reference

- 3 VHAJ, **State of India's Health – 1992** (VHAI, New Delhi)

## SEMESTER – II

### Paper – 6 : Human Anatomy, Physiology and Medical Terminology

#### Unit 1 : Human Anatomy and Physiology

- 1.1 Digestive System
- 1.2 Respiratory System
- 1.3 Circulatory System
- 1.4 Central Nervous System
- 1.5 Muscular Skeletal System
- 1.6 Reproductive System
- 1.7 Excretory System
- 1.8 Endocrine Glands
- 1.9 Special Senses

#### Unit 2 : Medical Terminology

- 2.1 Reasons for using medical terms
- 2.2 Glossary of medical terms: major diseases and medical specialties

#### Unit 3 : Roots, Prefixes, Suffixes, Abbreviations and Symbols

- 3.1 Common roots : element referring to, usage and definition
- 3.2 Common prefixes and suffixes
- 3.3 Common abbreviations: departments, time, general healthcare, routes of medication, and laboratory
- 3.4 Symbols

#### Unit 4 : Illness

- 4.1 Defining Illness : Direct and indirect causes
- 4.2 Classification and description of disease

#### Unit 5 : Infection Control

- 5.1 Medical asepsis, Nosocomial infection and communicable diseases
- 5.2 Reservoir, carrier and mode of transmission
- 5.3 Infection control measures
- 5.4 Sterilisation and aseptic techniques
- 5.5 Infection control committee : purpose, composition and terms of reference

#### Textbooks

- 1 John V. Basmajian and Charles E. Sloncker, *Grant's Method of Anatomy: A Clinical Problem – solving Approach* (BI Waverly Pvt. Ltd., New Delhi) ISBN 81-7431-033-9
- 2 Roger Waston, *Anatomy and Physiology for Nurses* (Prism Books Pvt. Ltd., Bangalore)

#### References

- 3 William F. Ganong, *Review of Medical Physiology* (McGraw Hill, Boston) ISBN 007-144040-2
- 4 *Stedman's Medical Dictionary* (Williams & Winkins, Baltimore) ISBN 0-683-07922-0
- 5 K. Park, *Textbook of Preventive and Social Medicine* (M/S Banarsidas Bhanot Publishers, Jabalpur)

## **Paper – 7 : Health Programme Management**

### **Unit 1 : Fundamentals**

- 1.1 Programme, Project, Tasks, Subtasks, Sub-subtasks
- 1.2 Linking Vision, Mission and Strategic Plans to Project
- 1.3 Pre-project Phases: Needs Analysis
- 1.4 Characteristics of Project
- 1.5 Advantages of Project Framework for Healthcare Programmes
- 1.6 Key Stages, Elements, Phases and Project Life Cycle

### **Unit 2 : Project Planning**

- 2.1 Problem Analysis : Cause and Effect
- 2.2 Process of Developing Objectives
- 2.3 Planning Cycle
- 2.4 Forecasting : Time Series, Correlation, Regression and Delphi Technique
- 2.5 Project Implementation Plan
- 2.6 Project Sustainability
- 2.7 Proposal Writing
- 2.8 Resources Budgeting, Mobilisation and Utilisation

### **Unit 3 : Planning Tools and Techniques**

- 3.1 Introduction to Operations Research
- 3.2 Estimating
- 3.3 Contingency
- 3.4 Milestones
- 3.5 Gantt Chart
- 3.6 Programme Evaluation and Review Technique (PERT)
- 3.7 Critical Path Method (CPM)
- 3.8 Linear Programming
- 3.9 Transportation Model, Assignment Models, Queuing Models : Single Channel and Multi Channel Queuing Models
- 3.10 Simulation : Deterministic Simulation Models and Probabilistic Simulation Models
- 3.11 Dynamic Programming

### **Unit 4 : Project Manager, Execution and Implementation**

- 4.1 Role of Project Manager and Skills Inventory
- 4.2 Managing Time
- 4.3 Managing Risk
- 4.4 Factors that Lead to Successful Projects
- 4.5 Project Tracking
- 4.6 Job Description, Staffing Pattern and Training Plan
- 4.7 Main Activities: Regular Monitoring, Regular Reviewing Progress, Re-plan
- 4.8 Recordkeeping and Reporting
- 4.9 Online Project Management

### **Unit 5 : Project Disengagement**

- 5.1 Review and Evaluation
- 5.2 Feedback
- 5.3 Audit Trail

#### 5.4 Publicise the Success

##### **Textbooks**

- 1 Donna Deeprise, Project Management (Capstone Publishing, Oxford)
- 2 H. Kerzner, Project Management : A System Approach to Planning Scheduling and Controlling (Wiley Eastern, New York)
- 3 Kanti Swarup and et al, Operations Research (Sultan Chand and Sons, New Delhi)

##### **References**

- 4 [www.ipma.org](http://www.ipma.org) (International Project Management Association)
- 5 [www.pmi.org](http://www.pmi.org) (Project Management Institute)
- 6 [www.4pm.com](http://www.4pm.com) (Discussions of Hot Topics in Project Management)

## **Paper – 8 : Human Resources Management**

### **Unit 1 : Basics of HRM and Sourcing**

- 1.1 Introduction and Relationship between HRM and HRD
- 1.2 Objectives of HRM
- 1.3 HR Planning: Short term and Long term
- 1.4 Productivity Analysis in Healthcare
- 1.5 HR Policy and Procedure
- 1.6 Recruitment
- 1.7 Selection
- 1.8 Placement
- 1.9 Induction / Orientation

### **Unit 2 : Training and Development**

- 2.1 Staff Training and Development
- 2.2 Trends
- 2.3 Structural Issues of Delivery of Training
- 2.4 Assessing Training Needs
- 2.5 Evaluating Training Development
- 2.6 Career Growth and Development
- 2.7 Management Development
- 2.8 Organizational Development

### **Unit 3 : Compensation Management**

- 3.1 Pay and Incentive System
- 3.2 Rationale Wage and Salary Policy
- 3.3 Wages and Salary Administration

### **Unit 4 : Performances Management and Human Resources Information**

- 4.1 Conceptual Model of Performances Management and Application of Basic Modes
- 4.2 Process, Need, Purpose and Content
- 4.3 Performance Indicators: Individual and Organization
- 4.4 360 Degree Feedback
- 4.5 Information and Records
- 4.6 Periodic Reports on Manpower, Turnover and Compensation
- 4.7 Information on Planned Changes, Performance, Turnover, Absenteeism and Labour Market

### **Unit 5 : Emerging Concepts in HRM**



- 5.1 Leadership and Learning Organization
- 5.2 Organization Culture and Change
- 5.3 Code of Conduct
- 5.4 Relationship
- 5.5 Values and Work Ethics
- 5.6 Staff Communication
- 5.7 Succession Planning
- 5.8 Health Issues and Repatriation
- 5.9 Occupational Hazards : Health and Safety
- 5.10 Welfare Programmes and Counselling

### **Textbooks**

- 1 David A. DeCenzo and Stephen P. Robbins, Human Resource Management (John Wiley & Sons Inc., New York)
- 2 R.C. Goyal, Handbook of Hospital Personnel Management (Prentice – Hall India Pvt. Ltd., New Delhi.
- 3 David A. Decenzo and Stephen Pl. Robbins, Prosonnel / Human Resource Management (Prentice – Hall of India Pvt. Ltd., New Delhip
- 4 Vincent K. Omachonu, Healthcare Performance (Engineering Management \, Pr, USA

## **Paper – 9 : Healthcare Marketing and Public Relations**

### **Unit 1 : Application of Marketing in Healthcare**

- 1.1 Marketing Concept of Marketing
- 1.2 Importance of Marketing to Healthcare Organizations
- 1.3 Challenges in Practicing Marketing in Healthcare Industry
- 1.4 Marketing Intelligence, Information and Research System
- 1.5 Marketing Organization : Chart, Fulltime Staff and Hiring Consultants

### **Unit 2 : Market (Individual and Organizational) Analysis**

- 2.1 Market Measurement and Forecasting
  - 2.1.1. Defining Market
  - 2.1.2 Measuring Current Market Demand
  - 2.1.3 Forecasting Demand
- 2.2 Market Segmentation and Targeting
  - 2.2.1 Steps in Segmentation and Targeting
  - 2.2.2 Target Marketing
- 2.3 Consumer Analysis
  - 2.3.1 Consumer Buying Process
  - 2.3.2 Organization Buyer Behaviour
  - 2.3.3 Consumer Adoption Process

### **Unit 3 : Marketing Mix Decisions**

- 3.1 Product (Service) Decisions

- 3.1.1 Nature and Characteristics of Services
- 3.1.2 Marketing Approaches to New Services Development
- 3.1.3 Service Mix Decision
- 3.1.4 Service Item Decision
- 3.1.5 Service Life Cycle Decision
- 3.1.6 Demand Generation
- 3.2 Pricing Decisions
  - 3.2.1 Pricing Objectives in Healthcare
  - 3.2.2 Pricing Strategy
  - 3.2.3 Present and Future Situation
- 3.3 Place Decisions
  - 3.3.1 Major Distribution Decisions
  - 3.3.2 Strengthening Referral System
- 3.4 Promotion Decisions
  - 3.4.1 Sales Force in Healthcare Organizations
  - 3.4.2 Advertising in Healthcare Industry
  - 3.4.3 Sales Promotion Practices in Healthcare Organizations
  - 3.4.4 Publicity Practices
- 3.5 Marketing Strategies
  - 3.5.1 Service Portfolio Strategy
  - 3.5.2 Market Expansion Strategy
  - 3.5.3 Target Market Strategy
  - 3.5.4 Price Quality Strategy
  - 3.5.5 Competitive Positioning Strategy
  - 3.5.6 Marketing Mix Strategy
- 4. Social Marketing
  - 4.1 Steps in Social Marketing
  - 4.2 Cognitive, Action, Behaviour and Value Changes
- 5. Public Relations
  - 5.1 Introduction to Public Relations
    - 5.1.1 Meaning of Public Relations
    - 5.1.2 Classification of Public from Healthcare Marketing Perspective
    - 5.1.3 Evaluation of Public Relations
  - 5.2 Public Relations Process
    - 5.2.1 Identifying the Relevant Publics
    - 5.2.2 Measuring Images and Attitude of the Relevant Public
    - 5.2.3 Establishing Image and Attitude Goals for the Key Publics
    - 5.2.4 Developing Cost Effective Public Relations Strategies
    - 5.2.5 Implementing Actions and Evaluating Results
  - 5.3 Community Opinion Surveys to Assess the Image of an Organization
    - 5.3.1 A Model Questionnaire used in Healthcare Services
    - 5.3.2 Methodology of the Study
  - 5.4 Public Relations Tools
    - 5.4.1 Materials : Written and Audiovisual
    - 5.4.2 Media : News, Events, Speeches and Telephone Information Services

## 5.5 Health Service Public Relations Officer

### 5.5.1 Profile of Public Relations Officer

### 5.5.2 Changing Role and Responsibilities of Health Service PRO

#### **Textbooks**

- 1 Philip Kotler and Roberta N. Clarke, Marketing for Healthcare Organizaions (Prentice Hall Publication)
- 2 Roger Silver, Health Service Public Relations (Radcliffe Medical Press Ltd., Oxford, 1995) ISBN 1-85775-028-4

#### **Reference**

- 3 John F. O'Malley, Healthcare Marketing Sales and Services: An Executive Companion (Health Administration Press) ISBN 1-56793-150-2
- 4 G.D. Kunder, How to Market Your Hospital Without Selling Your Philosophy (Prism Books Pvt. Ltd., Bangalore, 2000)

## **Paper – 10 : Hospital Accounting and Finance**

### **Unit 1 : Fundamentals of Accounting**

- 1.1 Meaning, Concepts, Principles, Accounting Rules
- 1.2 Single and Double Entry System
- 1.3 Journal Entry, Bookkeeping, Ledger
- 1.4 Accounts Receivable and Accounts Payable
- 1.5 Payroll and Executive Remuneration
- 1.6 Trial Balance
- 1.7 Rectification of Errors
- 1.8 Asset Accounting and Depreciation
- 1.9 Reserves and Provisions

### **Unit 2 : Cash Accounting and Cash Management**

- 2.1 Billing / Cash Receipts and Daily Cash Summary
- 2.2 Bank Accounts and Bank Reconciliation
- 2.3 Cash Book
- 2.4 Petty Cash Management
- 2.5 Authorisation and Approval
- 2.6 Cash Flow Analysis
- 2.7 Cash Budgeting
- 2.8 Cash Control

### **Unit 3 : Hospital Accounting and Financial Statement**

- 3.1 Departmentalised Accounting
- 3.2 Internal Control and Internal Auditing
- 3.3 Trust Funds
- 3.4 Investment Accounting
- 3.5 Application of Software
- 3.6 Revenue and Capital Expenditure
- 3.7 Receipt and Payment Account
- 3.8 Income and Expenditure Statement
- 3.9 Balance Sheet

### 3.10 Statutory Audit

## **Unit 4 : Hospital Finance : Fundamentals, Budgeting, and Costing**

- 4.1 Need and Importance of Financial Discipline
- 4.2 Basic Concepts : Liquidity, Profitability and Leverage
- 4.3 Role of Finance Controller and Responsibility Accounting
- 4.4 Budgeting
- 4.5 Need, Elements, Stages and Terms of Budgeting
- 4.6 Operating Budget : Activity / Zero Based Budgeting
- 4.7 Capital Budgeting : Return on Investment
- 4.8 Problem of Budgeting in Hospital
- 4.9 Costing
- 4.10 Basics of Cost Accounting : Types and Elements
- 4.11 Cost Behaviour
- 4.12 Cost Centres
- 4.13 Cost Volume Profit Analysis / Breakeven Analysis
- 4.14 Hospital Rate Setting / Pricing Decision
- 4.15 Cost Containment

## **Unit 5 : Financial Decisions and Fundraising**

- 5.1 Working Capital Management
- 5.2 Sources and Application of Fund
- 5.3 Analysis of Financial Statements
- 5.4 Financial Performance of Hospital
- 5.5 Financial Planning : Long Term and Short Term
- 5.6 Financing of Health
- 5.7 Analysis of Need for Fund for Modernization and Expansion
- 5.8 Financial Information System and Reporting
- 5.9 Investment Management
- 5.10 Fundraising
  - 5.10.1 Art of Fundraising
  - 5.10.2 Analyzing Donor Markets
  - 5.10.3 Organizing for Fundraising
  - 5.10.4 Fundraising Goals and Strategies
  - 5.10.5 Fundraising Tactics
  - 5.10.6 Evaluating Fundraising Effectiveness

### **Textbooks**

- 1 L. Vann Seawell, Principles of Hospital Accounting (Physicians' Record Company, Berwyn)
- 2 William O. Cleverley, Essentials of Healthcare Financing (An Aspen Publication, New Jersey)
- 3 VHAI, An Accounting Guide for Voluntary Hospitals in India (The Voluntary Health Association of India, New Delhi)
- 4 Steven F. Kukla, Cost Accounting and Financial Analysis for the Hospital Administrator (American Hospital Publishing Inc., AHA)
- 5 M.C. Shukla and T.S. Grewal, Advanced Accounts (S. Chand & Company Ltd., New Delhi) ISBN 81-219-0396-3
- 6 S.C. Kuchhal, Corporation Finance : Principles and Problems (Chaitanya Publishing House, Allahabad)

**SEMESTER - III**  
**Paper – 11 : Hospital Materials Management**

**Unit 1 : Materials Management**

- 1.1 Introduction
- 1.2 Definition and Function
- 1.3 Goals and Objectives of Materials Management
- 1.4 Materials Cycle
- 1.5 Functions of Materials Manager
- 1.6 Problems and Issues in Hospitals
- 1.7 Information Systems for Materials Management

**Unit 2 : Purchasing**

- 2.1 Objectives and Elements of Purchasing
- 2.2 Purchasing System
- 2.3 Purchasing Cycle
- 2.4 Purchase Procefures
- 2.5 Legal and Ethical Aspects
  - 2.5.1 Conditions of Contract
  - 2.5.2 Financial Rules
  - 2.5.3 Arbitration

**Unit 3 : Equipment Purchase and Maintenance**

- 3.1 Planning and Selection of Equipment
- 3.2 Import of Equipment
- 3.3 Equipment Utilization and Operation
- 3.4 Equipment Repair and Maintenance
- 3.5 Equipment Audit

**Unit 4 : Inspection, Storage and Distribution of Materials**

- 4.1 Planning Consideration of Stores
- 4.2 Inspection and Verification of Materials
- 4.3 Storage of Materials
- 4.4 Distribution of Materials
- 4.5 Condemnation and Disposal

**Unit 5 : Scientific Inventory Management**

- 5.1 Codification and Standardization
- 5.2 Value Analysis
- 5.3 Inventory Control
- 5.4 Lead Time, Safety Stock and Reorder Level
- 5.5 Economic Order Quantity (EOQ)
- 5.6 Selective Controls
- 5.7 Case Studies on Inventory Control

**Textbooks**

- 1 Shaki Gupta and Sunil Kant, Hospital Stores Management: An Integrated Approach (Jaypee Publications, New Delhi, India)
- 2 WHO, Maintenance and Repair of Laboratory, Diagnostic, Imaging and Hospital Equipment (WHO, Geneva)

**References**

- 3 Murriel Skeet and David Fear, Care and Safe Use of Hospital Equipment (VSO, UK)
- 4 P. Gopalakrishnan and M. Sundaresan, Materials Management : An Integrated Approach (Prentice – Hall of India Pvt. Ltd., New Delhi) ISBN 81-203-0027-0

## **Paper - 12 : Legal Aspects of Healthcare**

### **Unit 1 : Promotion**

Forming Society  
The Companies Act  
Law of Partnership  
A Sample Constitution for the Hospital  
The Tamil Nadu Clinics Act

### **Unit2 : Labour Relations**

Factories Act  
Shops and Establishment Act  
The Workmen's Compensation Act  
The Employee's State Insurance Act  
The Employees' Provident Funds Act  
The Payment of Gratuity Act  
The Maternity Benefit Act  
The Payment of Wages Act  
The Minimum Wages Act  
The Industrial Disputes Act  
The Industrial Employment (Standing Orders) Act  
The Trade Union Act  
The Apprentices Act  
The Employment Exchanges (Compulsory Notification of Vacancies) Act  
The Collection of Statistics Act

### **Unit 3 : Medical Care**

Medical Council of India  
Medical Licensure Law  
Doctors Patient Relationship  
Medical Malpractice  
Quality and Standard of Medical Care  
Negligence  
Medical Consent  
Emergency Care  
The Consumer Protection Act  
Patients Rights and Responsibilities  
Medical Ethics

### **Unit 4 : Medico Legal Commitments**

Mental Illness  
Tuberculosis  
Drugs Addicts and Alcoholics  
Legal Issue in Death Cases  
Legal Testimony in Medico-legal cases  
Narcotic Laws  
The Drugs and Cosmetic Act  
Drug Control Policy

Clinical Investigation  
Blood Transfusion  
The Medical Termination of Pregnancy Act  
The Prenatal Diagnostic Techniques Act  
Dying Declaration  
Medical Jurisprudence  
The Human Organ Transplantation Act  
Toxicology

### **Unit 5 : Hospital Administration**

- 5.1 The Biomedical Waste (Management and Handling) Rules
- 5.2 Radiation Safety System
- 5.3 Law of Insurance
- 5.4 Export Import Policy
- 5.5 Exemption of Income Tax for Donations
- 5.6 Tax Obligations: Filing Returns and Deductions at Source

### **Textbooks**

- 1 Raj Kumar, Acts Applicable to Hospitals in India (The Christian Medical Association of India, New Delhi)
- 2 N.D. Kapoor, Elements of Mercantile Law (Sultan Chand and Sons, New Delhi) ISBN 8170142067

### **References**

- 3 Ram Krishna Chaube, Consumer Protection and The Medical Profession with Legal Remedies (Jaypee Brothers, New Delhi) ISBN 8171797318
- 4 R.C. Anand and Sidhartha Satpathy, Hospital Waste Management :A Holistic Approach (Jaypee Brothers, New Delhi) ISBN 8171797202

## **Paper – 13 : Patient Care Planning and Management**

### **DETAIL CURRICULAM**

#### **Unit 1 : Hospital Planning**

- 1.1 Concept of Planning
- 1.2 Guiding Principles in Planning Hospital Facilities and Services
- 1.3 Regional Planning and Factors to be emphasized
- 1.4 Steps in Hospital Planning; Planning Team and Stages of Project
- 1.5 Estimation, Architech Brief and Master Plan
- 1.6 Selection of Site and Decision on Land, Space and Utilities

#### **Unit 2 : Outpatient Services**

- 2.1 Objectives
- 2.2 Functions
- 2.3 Location, Design and Layout
- 2.4 Policy and Procedures
- 2.5 Organization
- 2.6 Staffing
- 2.7 Equipment and Facilities
- 2.8 Key Result Areas and Performance / Quality Indicators
- 2.9 Daily Planning and Scheduling of Work

- 2.10 Managing Time : Waiting Time and Total Time
- 2.11 Specialty, Sub-specialty and Super Specialty Clinics
- 2.12 Diagnosis, Physiotherapy and Occupational Therapy
- 2.13 Emerging Concepts : Day Care, Reservation, Appointment by Phone
- 2.14 Medico-social Works / Patient Counselling
- 2.15 Other Facilities : Pharmacy, Gifts Shop, Prayer / Meditation Room

### **Unit 3 : Trauma Care : Emergency and Casualty Services**

- 3.1 Objectives
- 3.2 Functions
- 3.3 Location, Design and Layout
- 3.4 Policy and Procedures
- 3.5 Organizaion
- 3.6 Staffing
- 3.7 Equipment and Facilities
- 3.8 Key Result Areas and Performance / Quality Indicators
- 3.9 Disaster Management : Principles and Classification
- 3.10 Life Saving Drugs
- 3.11 Ambulance and Paramedic Services
- 3.12 Medico-legal Procedures
- 3.13 Forms and Registers to be maintained
- 3.14 Communication System

### **Unit 4 : Inpatient Services**

- 4.1 Inpatient Care
- 4.2 Objectives
- 4.3 Functions
- 4.4 Locations, Design and Layout
- 4.5 Policy and Procedures
- 4.6 Organization
- 4.7 Staffing
- 4.8 Equipment and Facilities
- 4.9 Key Result Areas and Performance / Quality Indicators
- 4.10 Admission, Transfer, Billing and Discharge Procedures
- 4.11 Managing Deaths
- 4.12 Intensive Care Units
- 4.13 Objectives
- 4.14 Functions
- 4.15 Location, Design and Layout
- 4.16 Policy and Procedures
- 4.17 Organization
- 4.18 Staffing
- 4.19 Equipment and Facilities
- 4.20 Keya Result Areas and Performance / Quality Indicators
- 4.21 Types of ICUs

### **Unit 5 : Operation Theatre**

- Objectives
- Functions



Location, Design and Layout  
Policy and Procedures  
Organization  
Staffing  
Equipment and Facilities  
Key Result Areas  
Daily Planning and Scheduling  
Determinants of number of Operating Rooms  
Zoning and Aseptic / Sterile Techniques  
Clinical Protocols  
Sub-stores, CSSD, Immediate Postoperative Recovery Rooms  
Safety Issues

### **Textbooks**

- 1 NHS, Guide to Good Practices in Hospital Administration (Department of Health and Social Security : National Health Services, London)
- 2 R. Llewelyn Davies and HMC Macaulay, Hospital Planning and Administration (Jaypee Brothers Medical Publishers P. Ltd., New Delhi)
- 3 Syed Amin Tabish, Hospital and Health Services Administration Principles and Practice (Oxford University Press, New Delhi)

### **References**

- 4 B.M. Sakharkar, Principles of Hospital Administration and Planning (Jaypee Brothers Medical Publishers Pvt. Ltd., New Delhi)
- 5 C.M. Francis and et al., Hospital Administration (Jaypee Brothers Medical Publishers Pvt. Ltd., New Delhi)
- 6 G.D. Kundurs, Designing for Total Quality in Health Care (Prism Books Pvt. Ltd., Bangalore)

### **Textbooks**

- 7 NHS, Guide to Good Practices in Hospital Administration (Department of Health and Social Security : National Health Services, London)
- 8 C.M. Francis and et al., Hospital Administration (Jaypee Brothers Medical Publishers Pvt. Ltd., New Delhi)

### **References**

- 9 G.D. Kundurs, Designing for Total Quality in Health Care (Prism Books Pvt. Ltd., Bangalore)
- 10 Syed Amin Tabish, Hospital and Health Services Administration Principles and Practice (Oxford University Press, New Delhi)
- 11 B.M. Sakharkar, Principles of Hospital Administration and Planning (Jaypee Brothers Medical Publishers Pvt. Ltd., New Delhi)

## **Paper – 14 : Supportive Services and Facilities Management**

### **Unit : 1**

Nutrition and Dietary services – Pharmacy services – Medical Records services.

### **Unit: 2**

Facilities Engineering – Maintenance of Civil Assets – Electrical supply and Water supply

– Medical gas pipeline – Plumbing and Sanitation – Air conditioning system – Hot water and Steam supply – Communication Systems – Need and scope of Biomedical engineering departments in modern hospitals.

**Unit: 3**

Laundry services – House keeping services – CSSD-Energy conservation methods – AMC.

**Unit: 4**

Ambulance services – Mortuary services – Hospital security services.

**Unit: 5**

Disaster management – Fire hazards – Engineering Hazards – Radiological hazards.- Outsourcing of Support services –few case studies.

**FRAME WORK FOR THE ABOVE TOPICS**

1. Definition
2. Section or types
3. Role and Functions
4. Planning consideration like location, principles, shape, design, types, layout, Special Requirements
5. Equipment required
6. Staffing
7. Policies and procedures
8. Monitoring and Evaluation

**REFERENCE BOOKS:**

1. Hospital and facilities planning and Design – G.D.Kunders
2. Hand Book of Bio-Medical Engineering - Jacob Kline
3. Clinical Engineering Principles and Practices - Webster J.G and Albert M. Cook
4. Maintenance Planning and Control - Antony Kelly

**Paper - 15 : Information Technology in Healthcare**

**Unit 1 : Basics of Computers and Management Information System**

Computers and its Parts

IT : Appropriateness and as focus of Organizational Change

Software and Hardware Selection : Factors to be Considered, Methods of Selecting and Optimize the Selection Procedures

Networking : Importance, Types, Methods of Networking, Network Planning and Management

LAN Security : Protecting Health Care Information, Internal Vs External Threats

MS Windows : Word, PowerPoint Presentations, Excel, Outlook Express, and Internet Exploring

Date Processing (DP) : Importance, Data Flow; DP Requirements and File Concepts: How to Process Data, Suitable Methods of Processing, Meaning of Files, Types and Importance of Files; Database Design, Interface Design, Reports Design and Advance Topics in Data Management

MIS : How to Process Information, Information and Records, Importance of Planning; Training and Educating Staff, Testing MIS

Role of IT in Office Automation : Traditional VS IT Office; what is Office Automation; Communication Technology for Automation; Retrieval and Storage System; Integrated Office Automation; Portable Office; Future Edge of Information Technology.

## **Unit 2 : Systems Management, Software Applications and Developmental Process**

System – SSAD Approach : Meaning, System Analysis, Design, Development, Testing, Implementation, Maintenance; Computer Systems Control and Auditing; Approaches to Conversion of a New System

Managing System Personnel – Difference in Managing System Personnel; Types; Users, Data Operators, Programmers / Software Engineers, Hardware Engineers, Maintenance Team, In-charge / Department Head, External Consultants; Orientation, Training, Retaining

Need Analysis

System Analysis

Feasibility Test : Economic, Technical, Political & Socio-cultural Factors

Tender Procedure : Bid Documentation Preparation, Tender, Technical Document Analysis, Financial Document Analysis and Contract

Software Development Procedure : Detail System Analysis, System Design, Database Design, Software Development, Testing and Implementation.

After Development Procedure : Maintenance, Updates, Modules Addition

Features of Software in Hospitals and Health Care

## **Unit 3 : Hospital / Health Information System – HIS**

Objectives, Characteristics, Elements, Categories

HIS for Various Levels of Management (Top / Middle / Operational)

Integrated HIS (IHMS)

Comprehensive Single Hospital MIS (CSHS), Comprehensive Multi-hospitals MIS (CMHS), Business Office Multi-hospital MIS (BMHS) and Special Purpose Single Hospital MIS (SSHS)

## **Unit 4 : Application of Computers in Hospitals and Health Programs**

Need and Importance of IT in Health Care

Centralized Vs Decentralized

Integrated Online HIS

Computerizing Medical Records, OPD, Ward, Admission and Discharge, OT, Clinical Laboratory, Blood Bank, Eye Bank, Clinical Quality Assurance, Pharmacy Community Outreach, Reception / Front Office, Materials Management, Financial Accounting, HRM, Training and Development, Medical Research, Library and Literature Search, Housekeeping

Implementing wireless computerized patient records

Complexity in computerizing Hospitals

Computerizing Health Programs / Projects and widely used latest Statistical and

Evaluation Software

### **Unit 5 : Latest Advancement in Technology**

Geographical Information System (GIS) : Digitizing Map, Software and Hardware Required for GIS  
Clinical Practices through Internet and Telehealth  
Electronic Medical Documentation and Smart Cards  
Useful Websites in Health Care  
Future Trends in Health Care Information Systems

### **Textbooks**

Toni Hebda & et al, Handbook of Informatics for Nurses and Health Care Professional (Prentice Hall, New Jersey)

John Abbott Worthley and Philip S. Disabris, Managing Computers in Health Care – A Guide for Professionals (Health Administration Press Perspectives, Michigan)

WHO, Informatics and Telematics in Health – Present and Potential Use (WHO, Geneva)

Marlene Maheu, Pamela Whitten & Ace Allen, E-Health, Telehealth and Telemedicine: A Guide to Startup and Success (Jossey-Bass) ISBN 0787944203

## **SEMESTER – IV**

### **Paper – 16 : Health Communication Planning and Management**

#### **Unit 1 : Communication : Fundamentals and Process**

Meaning and Process of Communication  
Barriers to Communication  
Key to overcome Barriers: Awareness, Self-assessment, Openness and Objectivity  
Leadership and Motivation  
Learning and Change Process  
Types : Formal, Supportive, Rigid, Purposeful and Complex  
Levels : Intra-Personal, Interpersonal, Public and Mass  
Process of Communication Planning  
Analysis of Audience and Situation  
Setting Objectives  
Designing strategy : Message, Methods and Media  
Planning Activities : Scheduling, Budgeting and Implementation  
Evaluation Phase

#### **Unit 2 : Strategies of Implementation of Communication Programme**

Building Commitment  
Training Manpower  
Community Participation  
Utilizing Resources

#### **Unit 3 : Evaluation of Health Communication / Campaign Programme**

Stages of Evaluation  
Criteria of Evaluation

Methods of evaluation

#### **Unit 4 : Methods of Communication**

Individual Methods (Individual teaching)

Interview : Meaning, types and techniques of taking interview

Counselling : Meaning and techniques of counseling

Group Methods (Group teaching)

Group discussion : Meaning, categories of members and their functions, factors affecting good discussion and decision making

Role play : Meaning, techniques of conducting role play

Symposium : Meaning, procedures of conducting the symposium

Mass Methods (Mass teaching)

Lecture : Meaning, types, techniques of delivering lecture effectively

#### **Unit 5 : Media of Communication**

Audio Aids

Cassette player : Meaning, advantage of using cassette player in teaching

Visual Aids

Pamphlet : Meaning and Advantages

Poster : Meaning and Techniques

Chart : Meaning, Types, Sources and Advantages

Flip Chart : Meaning and Techniques

Flannel Graph : Meaning and Techniques

Bulletin Board : Meaning and Procedures

Audio-visual Aids

Television (TV) : Meaning and Advantages

Video Show : Meaning and Advantages

Computer Networks, Websites, E-mails, etc.

#### **Textbooks**

- 1 L. Ramachandran and et al, A Textbook of Health Education (Vikas Publishing House Pvt. Ltd., New Delhi)
- 2 WHO, Health Education: Comprehensive Guidelines of Planning, Implementation and Evaluation (WHO Regional Office for South Asia, New Delhi)
- 3 Marry Munter, Guide to Managerial Communication (Prentice Hall, New Jersey) ISBN 0130462152
- 4 Robert J Bensley and Jodi Brookins Fisher, Community Health Education Methods: A Practical Guide (Jones and Bartlett Publishers, Boston) ISBN 0763718017
- 5 Hari Bhakta Pradhan, A Text Book of Health Education: Philosophy and Principles (Educational Publishing House, Kathmandu)
- 6 Michael E. Hattersley, Linda J. McJannet, Management Communication : Principles and Practice (McGraw-Hill Co.) ISBN 0070270414

## **Unit 1 : Health Insurance, Market Failure and Risks**

Concept of Health Insurance

Types, origin, evolution and importance:

Private Health Insurance for profit

Private Health Insurance not-for-profit : Community Health Insurance (CHI), Employer Based Insurance, Health Micro Insurance (MHI) and Reinsurance

Public Health Insurance : National Health Insurance, Social Health Insurance

Fundamental difference among various Health Insurance Schemes

Various models of CHI and MHI tested / implemented in developing countries

Health Insurance in Indian Context

Social security: A fundamental concept

Risk and Insurance

Demand and Supply for Health Insurance

Economics of Scale

Welfare Loss from Health Insurance

Actuarially Fair Premium, Expected Loss, Load Factors

Market failure and role of Government

Risks : Moral hazard, adverse selection, cost escalation, fraud and abuse, cream skinning

Risk Management Tools

Moral Hazard : Co-payment / coinsurance, deductibles, indemnity payment, mandatory referral system

Adverse Selection : Collective membership, group policies

Cost Escalation : Treatment Protocol, fixed fee per illness

Fraud and Abuse (free rider): Insurance cared with photograph

## **Unit 2 : Designing Benefit Package and Premium setting**

Designing Benefit Package : Introduction

Issues to be considered : Financial resources, existing infrastructure and quality care, priority, utilization, pattern of disease and injury, level of health services, estimating maximum demand

Costing the Benefit Package : Cost of pharmaceuticals, consultations, diagnostic support services, hospitalization, additional services and operating costs

Premium Setting : Calculation and determining Premium

## **Unit 3 : Provider Payment Mechanism**

Introduction, fee for services, case payment, daily charge, bonus payment, flat rate payment, capitation, salary, global budget, DRG

Comparison of different payment systems

## **Unit 4 : Designing and Planning of Community Health Insurance**

Pre-Feasibility Study : Establish contact with community, test preconditions (social cohesion, priority for health, trust to the initiator, quality services. Economic situation), information, education and communication, working groups, planning data collection

Data collection and analysis: household survey questionnaire design, production of information

Feasibility Study : Basis of choice (benefit package and premium), scenario, major risks and its management, payment mechanism and fund management

Preparing for Implementation: Practical and logistics

Implementation : Launching, enrolment, premium collection, waiting period  
Monitoring and Evaluation

### **Unit 5 : Managed Care**

Origin, Growth and Development of Managed Care

Importance

Management Functions of Managed Care

System of Managed Care

Health Maintenance Organization (HMO)

Preferred Provider Organization (PPO)

Exclusive Provider Organization (EPO)

Physician Hospital Organization (PHO)

Independent Practitioner Organization (IPO)

Components of Managed Care System

Contractor Provider Network

Patient Access Systems

Utilization Management

Claims Payment

Customer Service

Quality Management

### **Textbooks**

- 1 Peter R. Kongstrvedt (ed), The Managed Health Care Handbook (Aspen Publication, Maryland, USA, 1989)
- 2 L.M. Harpster and M.S. Veach, Risk Management Handbook for Healthcare Facilities (American Hospital Association, USA, 1990)

### **References**

- 3 A.V. Rickel and T.N. Wise, Understanding Managed Care (Karger, USA 2000)

## **Paper – 18 : Strategic Management in Healthcare**

### **Unit 1 : Introduction**

Critical Areas

Dimensions

Level of Strategy

Characteristics of Strategic Decision

Benefits

### **Unit 2 : Strategic Management Process : Components**

Mission for an Organisation

Organizational Profile

External Environment

Strategic Analysis and Choice  
Long term Objectives  
Grand Strategy  
Annual Objectives  
Functional Strategies  
Policies  
Institutionalising the Strategy  
Evaluation and Control

### **Unit 3 : Situational Analysis**

Need  
Environmental issues, Vision, Mission, Objectives, Values, Directional Strategies, Adaptive Strategies, Market Entry Strategies, Positioning Strategies and Operational Strategies  
External Environment Analysis  
Need  
Goals  
Limitations  
Description  
General Environment, Healthcare Environment and Information  
Process : Scan, Monitor, Forecast and Assess  
Tools and Techniques  
Responsibility : 3 Administrative Models  
Internal Environment Analysis  
Objectives  
Culture, Management Subsystem and Information Subsystem  
Audit Checklist of Strengths and Weaknesses

### **Unit 4 : Strategy Formulation**

Developing Strategic Alternatives  
Evaluation of Alternatives and Strategic Choice

### **Unit 5 : Application in National and International Level**

Strategic Management Practices in National Health Care Programs

Strategies adopted in Long Term Health Policy with special reference to Women and Child Health, AIDS Control, Tuberculosis Control, Leprosy Control, Malaria Eradication, and Water Supply and Sanitation

Strategic Planning in Family Planning and Welfare Programme  
Strategic Management Practices in International Healthcare  
Strategies adopted by International Agencies : WHO, World Bank

Strategies Approach in Health Programs of few Developed Countries and / or Neighbouring Countries.

### **Textbooks**

- 1 W. Jack Duncan, Peter M. Ginter and Linda E. Swayne, Strategic Management of Health Care Organizations (Blackwell Publishers, Massachusetts, USA) ISBN 1-55786-534-5
- 2 K. Park, Text Book of Preventive and Social Medicine (M/s Banarsidas Bhanot,



Jabalpur)

## **References**

- 3 John A. Pearce II and Richard B. Robinson Jr., Strategic Management: Strategy Formulation and et al, Strategic Analysis for Hospital Management (Aspen Publication, USA)

## **Paper – 19 : Managing Quality in Healthcare**

### **Unit 1: Fundamentals**

History, Need and Importance of Quality Management  
Core Values, Concepts and Model  
Quality Gurus and their views  
Dimensions of Quality  
Principles of Quality Management : Structure, Process and Outcome  
Quality Vs Productivity Vs Profitability  
Cost of conformance and non-conformance to Quality  
Major Components in Quality  
Setting Objectives  
Quality Investment  
Activity Monitoring  
Performance Assessment  
Quality Management Process  
Leadership Commitment  
Corporate Framework on Quality  
Transformation of Corporate Culture  
Customer Focus  
Process Focus  
Collaborative Approach  
Education, Training and Development  
Learning by Practice and Teaching  
Benchmarking  
Quality Measurement and Statistical Report at all Levels  
Recognition and Reward  
Management Integration

### **Unit 2 : Quality Foundation, Tools ;and Techniques**

Leadership  
Team Work  
Communication  
Problem Solving  
Managing Time  
Tools and Techniques  
Flow Chart  
Cause and Effect Diagram  
Pareto Diagram  
Statistical Process Control (SPC)

### **Unit 3 : Healthcare Quality**

Quality / Customer Service  
Define Customer and Identify Customers  
Customer Experience : Core Service & Delivery of Service  
Excellent Customer Service ; Caring Service  
Individual Behaviour : Stress, Communication and Interpersonal Relationship  
Patient Satisfaction  
Rights and Responsibilities of Patients  
Satisfaction and Delight  
Quality Indicators of Patient Satisfaction  
Clinical Quality  
Complication and Infection Rate  
Admission, Follow Up and Continuity of Care  
Measuring Quality  
Setting Objectives and Agreeing upon Standards  
Develop Key Result Areas and Performance Indicators  
Feedback : Customers, Staff, Suppliers, etc.  
Quality Audit and Review Techniques

#### **Unit 4 : Organisation and Roles in Quality**

Quality Policy : Commitment to Patients and Staff  
Code of Conduct for Health Professionals  
Job Description of Quality Manager  
Quality Steering Committee  
Quality Council  
Quality Teams : Task Force, Quality Circle  
Obstacles to Practice Quality

#### **Unit 5 : Recent Trends**

ISO Certification; BS Mark  
Accreditation : JCI  
Quality Awards Scheme  
Business Process Reengineering

#### **Textbooks**

- 1 Wilson CRM, Hospital Wide Quality Assurance (Saunders, Ontario)
- 2 Hugh C.H. Kogh, Total Quality Management in Health Care (Longman Publicaiton) ISBN 0582 04696
- 3 Roger Ellis and Dorothy Whittington, Quality Assurance in Health Care – A Hand Book (Edward Ainoid, London) ISBN 0-340-55273-5

#### **References**

- 4 Edward W. Deming, Out of the Crisis (Cambridge University Press, Cambridge)
- 5 Richard Smith (ed.) Audit in Action (British Medical Journal, London) ISBN 0-7279-0317-9
- 6 Nankemp and Eileen Richardson, Quality Assurance in Nursing Practice a(Butterworth Heinemann Ltd., London, Second Edition) ISBN 0-7506-2326-8)
- 7 Helga Drummond, The TQM Movement – what Total Quality Management is Really All About (UBSPD, New Delhi)

### **Paper – 20 : Research Methodology**

#### **Unit 1 : Introduction, Research Planning and Design**

Meaning, Purpose, Types and Methods of Research  
Research Process  
Steps in Research Planning  
Problems: Components, Selecting and Defining Problem  
Purpose, Objectives and Hypothesis  
Research Strategies  
Ethical Aspects in Health Research  
Economic Considerations  
Data Collection Plans: Questioning, Information Gathering and Sources  
Plans for Analysis of Data  
Proposal Writing  
Research Design in case of different researches

## **Unit 2 : Sampling Methods**

Census Vs Sampling  
Universe, Sampling Frame, Sampling Design, Errors, Precision and Confidence Level  
Principles of Sampling  
Steps in Sampling Design  
Systematic Bias & Causes of Bias  
Types of Sampling Design  
Merits and Limitations of Sampling

## **Unit 3 : Data Collection**

Primary and Secondary Data  
Methods of Collecting Primary Data : Questioning and Observation  
Prerequisites / Basic Tenets of Interviewing  
Designing a Questionnaire  
Pre-testing / Pilot Study

## **Unit 4 : Data Analysis : Biostatistics**

Functions, Scope and Limitations  
Presentation of Data  
Measures of Central Tendency  
Measures of Variation  
Correlation and Regression Analysis  
Forecasting and Time Series Analysis  
Probability  
Sampling  
Estimating of Parameters  
Tests of Hypothesis  
Chi Square Test  
Statistical Quality Control

## **Unit 5 : Interpretation and Report Writing**

Reasons, Techniques and Precautions in Interpretation  
Significance of Report Writing

Steps in Report Writing  
Layout of a Research Report  
Types of Reports  
University Prescribed Guidelines  
Precautions

### **Textbooks**

CR Kothari, Research Methodology Methods and Techniques (Wiley Eastern Ltd., New Delhi)

PSS Sundar Rao and J Richard, An Introduction to Biostatistics – A Manual for students in Health Sciences (Prentice – Hall of India Pvt. Ltd., New Delhi)

### **References**

Stephen Polgar and Shane S Thomas, Introduction to Research in the Health Sciences (Churchill Livingstone Publications)

BK Mahajan, Methods in Biostatistics (Jaypee Brothers Medical Publishers P. Ltd., New Delhi)

SP Gupta and MP Gupta, Business Statistics (Sultan Chand & Sons, New Delhi)