Syllabus of Bachelor in Hospital Administration

# SYLLABUS BACHELOR IN HOSPITAL ADMINISTRATION (BHA) Course

# UNDER

WEST BENGAL UNIVERSITY OF HEALTH SCIENCES (WBUHS)

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2019

International Institute of Hospital Management & Allied Health Sciences

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Fundamental of Inventory 1 - 3 60 20	80	100
403 Medical Ethics 1 - 3 60 00	80	100
4 404 Biomedical Instrumentation 1 - 3 60 20	80	
Practical		100
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5		Hospital Report Presentation	,	1 month			166		
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	603	Environment & Ecology	1		8	60	90	100	
9	602	Biomedical waste & Disaster Management	1		18	66	20	80	100
2	601	Health Insurance Medical Tourism	1		8	60	90	80	166
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\*\*Student will be posted for a period of one month in a hospital for the completion of internship. During this period, his *or* her performance will be evaluated by the host administrator in a standard format under well-defined parameters.

\*\*The Hospital report presentation which is to be submitted at the end of semester six should comply the hospital visit and biomedical waste visit of semester five and internship of semester six both.

\*\* The total expansion of practical session that is 3 month 7 days (2 months at the time of minor project, 4 month for hospital report presentation as well as internship, 7 days for hospital for biomedical waste visit) must consist 4 hours of each day.

# SPECIAL PAPERS

- 1. Public Relation
- 2. Hospitality Management
- 3. Occupational Health
- 4. Front Office Management
- 5. Emergency service department

\*\* For any special paper there should be minimum 25 % students of the total strength.

International Institute of Hospital Management & Allied Health Sciences

1/8/2021

# **SEMESTER - I**

# 101: HOSPITAL ORGANIZATION & MANAGEMENT THEORY

# Objective:

This subject focuses on acquainting the student with the principles and practices essential for managing a hospital organization. With an objective of imbibing a professional approach amongst students towards hospital management, the subject encompasses management principles, functions and processes, discussing their significance and role in effective and efficient management of health care organizations

# **Contents:**

### Unit-I

- 1. Introduction to Management
  - a. Evolution of Management
  - b. Definition of Management
  - c. Importance of Management
- 2. Classical Theories of Management
  - a. Frederic W.Taylor's scientific Management
  - b. Henry Fayol's administrative Management (14 Principles)
  - c. Max Weber Bureaucratic Management
- 3. Different approaches towards Management
  - a. Human relations approach
  - b. Behavioral approach
  - c. Operational and System approach
  - d. Contingency approach

### **Unit-II**

- 1. Management Process
  - a. POSDCORB (planning, organizing, staffing, directing, coordinating, reporting, budgeting)
- 2. Fayols five functions of management
  - a. Planning, Organizing, Commanding, Coordinating, Controlling
  - b. Application of managerial functions to health care organizations

### **Unit-III**

- 1. Organization concepts and processes
  - a. Nature and structure of organization
  - b. Types of organizations
  - c. Matrix Forms
  - d. Line and Staff relationships

### 2. Decision-making

- a. Definition, types of decision, process and technique in decision making
- b. Guidelines for improved decision-making
- c. Modern approach to decision making at hospital perspective

# 3. Leadership

### **Unit-IV**

- 1. Behavioural concepts
  - a. Cognitive process
  - b. Perception process

### 2. Motivation

- a. Different types of motives
- b. Motivation process
- c. Selected theories of motivation
- d. Motivating medical and paramedical professionals

# 3. Conflict management

- a. Definition, sources, Types of conflict
- 4. Team building

### **Unit-V**

- 1. Concepts of Organization Behavior(OB)
  - a. Historical development
  - b. Major components of OB
  - c. Basic approaches of OB
  - d. Fundamental principles of OB
  - e. Challenges and opportunities

### 2. Personality

- a. Meaning, determinants
- b. The Big Five Model, personality attributes influencing OB.
- 3. Attitude: Formation, components of attitudes, relation between attitude & behaviour
- 4. Group Dynamics

### **Unit-VI**

- 1. Social responsibilities of management
  - a. Management and society
  - b. Culture and management
  - c. Management ethics
  - d. Social objectives and responsibilities of management
  - e. Corporate social responsibility hospitals and social responsibility

- 1. Syed Amin Tabish, Hospital and Health services administration ∼ principles & practice, Oxford University Press, New Delhi, 2001.
- 2. Graw Hill, New Delhi, 1998
- 3. James A.F. Stoner, R. Edward Freeman and Denier R. Gilbert Jr., Management, Prentice Hall India, New Delhi, 1997.
- 4. Kountz Harold, Heinz Weihrich, Management A global perspective, 19th edition, Mc Graw Hill International, New Delhi, 2005.
- 5. Srinivasan A.V. Japanese management The Indian context, Tata Me Oraw Hill, New Delhi, 2000.
- 6. Koontz Harold, Heinz Weihrich, Essentials of management, Mc Oraw Hill International, New Delhi, 2004.
- 7. L. M. Prasad, Principles and practice of Management, 6th edition, Sultan Chand Publisher, New Delhi, 2001.
- 8. Principles and practice of management-L.M. Prasad, Sultan Chand & sons.
- 9. Management theory and practice-C.B Gupta, sultan Chand & sons.

# 102: HUMAN RESOURCE MANAGEMENT (HRM)

# **Objective:**

In today's competitive world, organizations can only thrive on human resources as their cutting edge. Good people management helps the organizations to leverage their strengths and attain a sustainable growth. Any HR intervention taken up, as such should be in line with the long term and short term goals and strategies of the organization.

This subject acquaints the students with major functions of HRM aligned with the business strategy, as HR is the function that can link people and strategy to achieve organizational performance.

### **Unit-I**

- 1. Introduction to HRM
  - a. Nature & Scope of HRM
  - b. Definition & Function
  - c. Objectives
  - d. Organization Structure Of HRM Department
  - e. Policy Evolution Of Personnel/ HRM Department in Hospital
  - f. Human Resource Information Systems

### **Unit-II**

- 1. Acquisition of Human Resources
- 2. Planning Forecasting Budgeting
- 3. Human Resource Requirements
- 4. Job Analysis
- 5. Job Design Recruitment
- 6. Selection
- 7. Orientation
- 8. Placement

# **Unit III**

- 1. Human Resource Development (HRD)
  - a. Employment Training
  - b. Management Development
  - c. Performance appraisal
  - d. Performance management cycle
  - e. Performance Counseling
  - f. HRD instruments and interventions

- 2. Maintenance of Human Resources
  - a. Employee Compensation
  - b. Job Evaluation
  - c. Incentive Payments
  - d. Promotion & Transfer
  - e. Policies & Methods
- 3. Diagnostic model of the training process- Hospital Perspective

### **Unit IV**

- 1. Grievance handling
  - a. Definition of Grievance
  - b. Grievance procedure
  - c. Principles and guidelines for grievance handling
- 2. Impact of trade unions on industrial relations
- 3. Industrial Disputes
  - a. Causes & Remedial Measures
  - b. Collective bargaining
- 4. Work Ethics & Work Standards
  - a. Techniques of work measurement
- 5. Time and motion study

# **Unit V**

- 1. Career Planning & Development
  - a. Process
  - b. Steps in Career Planning & Development
  - c. Key Issues in Career Development

- 1. Aswathappa, Human Resource & Personal Management, TMH
- 2. Gomez Mezia, Managing Human Resources, Pearson Education
- 3. Personnel management, CB Mammoria-Himalaya

### 103: COMMUNICATION & HEALTH SYSTEM

# **Objectives:**

To provide the students a basic insight into the main features of Indian health care delivery system and how it compares with the other systems of the world & to enhance the intercommunication level among the system.

### Unit-I

- 1. Fundamentals of Managerial Communication
  - a. Meaning & Definition of communication
  - b. Role and objective of communication in Hospitals
  - c. Process of communication
  - d. Effective media for communication in Hospital professional
  - e. Barriers of effective communication in Hospitals
  - f. Overcoming the barriers of effective communication in Hospitals
  - g. Understanding different social medias and its effective usage in Hospitals

### **Unit-II**

- 1. Concept of Health
  - a. Definition of Health
  - b. Holistic approach to health
  - c. Spectrum of Health
  - d. Positive health
  - e. Dimensions of Health
  - f. Determinants of Health
  - g. Concept of well being
  - h. Indicators of health

### Unit III

- 1. Health System
  - a. Concept of Health Care & Health System
  - b. Levels of Health care delivery system in India
  - c. Organization of Indian Health Administration
  - d. International Health Under United Nations
  - e. WHO

### **Unit-IV**

- 1. Definition and meaning of hospital
- 2. Functions of hospitals
- 3. Types of hospital
- 4. The modern hospital: A complex entity
- 5. Present status of hospitals in India
- 6. Present State of Govt. hospital
- 7. Peculiarities of hospital systems

- 1. Preventive and Social Medicine, K. Park-Bhanot
- 2. Community Medicine, AHSuryakantha-JAYPEE
- 3. Communication Skills (English, Paperback, N. Gupta, K. Jain, P. Mahajan)- Sahitya Bhawan Publications-2018.
- 4. Communication Skill ,Kumar Sanjay, Lata Puspa,Oxford,2<sup>nd</sup> edition,2018

### 104: PLANNING & ORGANIZATION OF HOSPITAL

# **Objectives:**

To expose the students to planning and operation of hospitals in a detailed manner which will include all facets of hospital planning activities covering every department that is involved both in clinical care as well as supportive services. A chapter on research in Hospital Services and Resources is also added to give impetus for research in this field.

### **Contents:**

## **Unit-I**

- 1. Introduction to Hospital
  - a. Definition of Hospital
  - b. Objectives of hospital
  - c. Classification of Hospital
  - d. Functions of Hospital

### **Unit-II**

- 1. Concept of Professional management
  - a. Definition of Professional management
  - b. Professional management implementation
  - c. Nature and characteristic of professional management
  - d. Overview of Professional service units of a hospital (clinical and non clinical)
  - e. Challenges of Indian hospital
  - f. Management of Indian hospital-challenges and strategies

### **Unit-III**

- 1. Hospital Planning
  - a. Guiding principles in planning hospital facilities & services Planning the hospital building
  - b. Principles of Hospital Planning
  - c. Conception of idea
  - d. Development of Hospital planning team
  - e. Six basic question related to hospital planning
  - f. Emerging issue and strategic essential related to Hospital planning
  - g. Conception of idea
  - h. Market survey
  - i. Feasibility study
  - j. Financial Planning of Hospital
  - k. Equipment planning
  - I. Stages in planning
  - m. Planning the operational units, engineering, lighting
  - n. Gantt Chart

### **Unit-IV**

- 1. Organization of the hospital
  - a. Management structure
  - b. Governing body
  - c. Hospital committees and hospital functionaries Duties and responsibilities of various levels of management

# References:

- 1. The hospital administrator, MA George-JAYPEE
- 2. Hospitals and Nursing homes planning, organizations and management, Syed Amin Tabish-JAYPEE
- 3. Hospital administration, CM Francis & Mario C Desouza-JAYPEE
- 4. Hospital facilities planning & management, Gd Kunders-TMH
- 5. Hospital administration, DC Joshi & Mamta Joshi-JAYPEE

# **Practical**

# 105: LANGUAGE: (English)

# **Objectives:**

To communicate with other personnel in proper English & enhance communication skill

### Contents:

Unit-I: Functional grammar in English

- 1. Tense
- 2. Voice

4. Subject verb agreement

3. Narration

5. Vocabulary

### **Unit-II:** Technical writing in English

- 1. Fundamentals of Official Letter writing
- 2. Report writing

5. Essay writing

3. Comprehension

6. Posters and publicity materials

4. C.V and job application

# 106: COMMUNICATION SKILL:

# Objectives:

For betterment of students" approach, appearance, communication ability, self-portrayal.

### **Contents:**

- 1. Grooming: Personal and Professional grooming
- 3. Conversation on current issues
- 4. Group Discussion, Mock Interview
- 2. Personality Development
- 5. PowerPoint presentation, Role play

# **SEMESTER - II**

### 201: MARKETING MANAGEMENT IN HOSPITAL

# **Objective:**

This subject will provide an exposure to the conceptual framework of marketing in general and specific to hospitals. This learning will enable the students to understand the need, relevance and necessity of marketing in today's competitive market environment, facilitates them operationalizing and implementing marketing as an integral functions in a Healthcare scenario.

### Contents:

### Unit-I

- 1. Introduction to Marketing
  - a. Definition
  - b. Nature
  - c. Scope & Importance of Marketing
  - d. Marketing concepts traditional and modern
  - e. Marketing Environment
  - f. Marketing Mix
- 2. Consumer Behavior and STP
  - a. Nature and significance of consumer behavior
  - b. Stages and participation in buying process
  - c. Market segmentation
  - d. Targeting
  - e. Positioning

### **Unit-II**

- 1. Product
  - a. Concept of Product
  - b. Product line
  - c. New Product Development
  - d. Product life cycle & its Stages
- 2 Price
  - a. Importance of price in the marketing mix
  - b. Factors affecting price
  - c. Methods of pricing
- 3. Place
  - a. Concept & Importance
  - b. Concept & role of Channels of distribution
  - c. Types of distribution channels
  - d. Factors affecting choice of a distribution channel

### 4. Promotion

- a. Nature and importance of promotion
- b. Promotional methods
- c. Advertising
- d. Personal selling
- e. Sales promotion

### Unit-III

- 1. Differentiating and positioning
  - a. Tools for competitive differentiation
  - b. Developing a positioning strategy
- 2. Service Marketing
  - a. Segment wise classification of health-care service marketing
  - b. Different types of customers in hospitals and their characteristic features
  - c. Different components of health-care service marketing-mix
  - d. Service gap model by Parsuraman.

- 1. Marketing management, Philip Kotler-Prentice hall-India
- 2. Marketing management, K. Karunakaran- Himalaya publishing house
- 3. Marketing management, Rajan Saxena-Tata McGraw Hill

### 02: FINANCIAL MANAGEMENT IN HOSPITAL

# **Objective:**

The objective of this subject is to expose the students to decision making by corporate board in the areas of finance function. It will equip the student with concepts, technical and analytical tools for optimal management of financial resources of a business enterprise.

### Contents:

# **Unit-I**

- 1. Introduction to Financial Management
  - a. Financial goal
  - b. Profit vs. wealth maximization
  - c. Financial functions
  - d. Financial planning
  - e. Financial obstacles

# **Unit-II**

- 1. Working Capital Management
  - a. Concept & Components
  - b. Profit vs. wealth maximization
  - c. Factors affecting working Capital
  - d. Classification of Working Capital
  - e. Practical problem on Working Capital requirement
- 2. Capital Budgeting
  - a. Definition
  - b. Techniques of Capital Budgeting
  - c. Practical Problem on- ARR, PBP, NPV and PI

# **Unit-III**

- 1. Ratio Analysis
  - a. Meaning of Ratio Analysis
  - b. Classification of Ratios
  - c. Importance & Limitation of Ratio Analysis
  - d. Practical problems (Only calculation of Liquidity, Solvency, Activity & Turnover Ratio)

# **Unit-IV**

- 1. Cash Flow Statement
  - a. Definition
  - b. Objectives
  - c. Significance and limitations
  - d. Preparation of Cash flow Statement (without adjustment).

- 1. Financial Management, Khan & Jain-TMH
- 2. Financial Management, Gupta-Pearson Education
- 3. Financial Management, Majumder, Ali & Nesha-ABS
- 4. Financial Management, I. M. Pandey -Bikash Publications
- 5. Financial Management, M. Y. Khan & P. K. Jain, -TMH Publications
- 6. Financial Management, P. Chandra-TMH Publications

# 203: HOSPITAL ACCOUNTING SYSTEM

# **Objective**

To provide an understanding of the basic principles and processes involved in the accounting system of a hospital. The course will help and develop skills in analyzing accounting statements for decision-making in a hospital setting and practice the preparation of final accounts.

### Contents:

### **Unit-I**

- 1. Introduction to Accounting
  - a. Accounting: Meaning, Objectives and Advantages and limitation
  - b. Functions & attributes
  - c. Branches of Accounting
  - d. Accounting Cycle, accounting equation, types of account
  - e. Users of Accounting Information.
  - f. Fundamental Accounting Assumptions: (Going Concern, Consistency, Accrual.)
  - g. Accounting Principles: (Accounting Entity, Money Measurement, Accounting Period, Full Disclosure, Materiality, Prudence, Cost Concept, and Dual Aspect, Revenue recognition, matching.
- 2. Recording of Transactions Double Entry System
- 3. Rules of Debit and Credit
- 4. Rules of Journal and ledger
- 5. Preparation of trial balance.

# **Unit-II**

- 1. Financial Statements
  - a. Financial Statements: Objective and Importance
  - b. Functions & attributes
  - c. Trading and Profit and Loss Account
  - d. Receivable and payment account
  - e. Users of Accounting Information.
- 2. Balance Sheet
  - a. Need
  - b. Functions & attributes
  - c. Grouping
  - d. Marshalling of assets and liabilities
- 3. Adjustments in Preparation of Financial Statements.

### **UNIT-III**

- 1. Cost Accounting:
  - a. Introduction: Definition of Costing
  - b. Functions & attributes
  - c. Cost concepts
  - d. Types of costs
  - e. Users of Accounting Information
  - f. Cost sheet (introduction only).

# **UNIT-IV**

- 1. Materials control:
  - a. Introduction
  - b. Various stock levels
  - c. Economic Ordering Quantity
  - d. Various methods of pricing materials issues (FIFO and LIFO).

- 1. Financial Accounting I, Mukherjee & Mukherjee, -Oxford Publications
- 2. Financial Accounting, Hanif & Mukherjee, -McGraw Hill Publications
- 3. Financial Accounting, Tulsian-Pearson Publications
- 4. Cost Accounting, B. Banerjee-PHI Publications
- 5. Maheswari, S.N., An Introduction to accounting, Vikas Publications, New Delhi, 1994,

# **204: HEALTH ECONOMICS**

# **Objective:**

The primary aim of this subject is to provide a clear, concise introduction to micro economic concepts, health economics as applied to hospital and health care sector.

### Contents:

### **Unit-I**

- 1. The Fundamentals of Economics
  - a. Definition
  - b. Branches of economics
  - c. Concepts of economics
  - d. Entities
  - e. Type of economics
  - f. Characteristics and types
  - g. Elements of economic concepts
  - h. Laws of economics
  - i. Methods and Assumption
  - j. Problem of economy / 4 basic questions of economy and health economy
  - k. Economic Organizations
  - I. Utility
  - m. Wealth, Production
  - n. Capital- Central Problems of an Economy.
- 2. Health economic concepts
  - a. Definition
  - b. Concepts
  - c. Scope of health economics
  - d. Issues and challenges
  - e. Focus on the Health economics
  - f. Area of health economics
  - g. Elements of economic concepts
  - h. Nature, need, importance of HE
  - i. Health policy issues with the relevance of health economics
  - j. Growth and development of Health economics
  - k. Important Usual Economic features
  - I. Population and Economic development
  - m. Health financing from various sources

### **Unit-II**

- 1. Demand
  - a. Meaning
  - b. Determinants of demand
  - c. law of demand
  - d. Elasticity of demand
  - e. Price, income and cross elasticity
- 2. Supply
  - a. Meaning
  - b. Determinants
  - c. law of supply
- 3. Demand vs. Supply

## **Unit-III**

- 1. Short-run and long-run costs
- 2. Average and marginal costs
- 3. Total, fixed and variable costs
- 4. Various forms of market
  - a. Monopoly
  - b. Perfect competition
  - c. Monopolistic competition
  - d. Oligopoly
- 5. Pricing strategies.

### **Unit-IV**

- 1. Cost Benefit Analysis and Cost Effective Analysis-
- 2. Health Care Budget: Purpose, types and practices in Indian context.

### **Unit-V**

1. Economics of Health Programmes for Nutrition, Economics of abuse of tobacco & Alcohol, Economics of Breast feeding.

### References

- 1. Health Economics-Jay Bhattacharya, Timothy Hyde & Peter Tu
- 2. Health Economics- Dr. Jeyasingh, Dr. D. Solomon Raj, Dr. D Jery Josephin
- 3. Health Economics- Pushpalata Pattnaik
- 4. Health Economics- P. C. Das

### **Practical**

# 205: FINANCIAL PROBLEMS BY PEDAGOGY AND ANDRAGOGY METHODS

# **Objectives:**

To learn the teaching learning method for adult as well as college students regarding financial problems in various aspects related to hospital.

## 206: Basic Computer:

## **Objective:**

Familiarize the student with: PC environment, software and hardware, advanced SW packages of corporate utility, IT use for presentation with focus to activities related to hospital management.

### Contents:

### **Unit-I**

# Introduction to computers

Definition, characters, hardware, software, generations of computers, operates system.

### **Unit-II**

### **Networks and database**

Importance of network, types of network, network software and hardware, database languages, Backup features, data recovery security features.

### **Practices**

Windows and MS Office

MS Word: Templates and Wizards, formatting text, , editing, tables and graphics, spell check, printing, macro commands

MS Excel: Data entry, formatting, data handling, functions, formula, goal seek, scenario solver, filter, graphs, charts and mapping, statistical applications;

MS PowerPoint: Converting Word into PP, formatting, templates, slide show, animation, art and sound, file management, hand out printing.

MS Access: Data in tables, using forms, queries, reports.

- 1. Gordon B. Davis and M. H. Ols'on, Management Information System, McGraw Hill Publishing Company, New Delhi, 1998.
- 2 Rajaraman, Fundamentals of Computers Prentice Hall India, New Delhi 1996. Lonnie

### SEMESTER-III

# 301: Medical Terminology

# **Objectives:**

To introduce the students to the vocabulary, terms used by medical professionals, such as doctors, nurses and medical technologists.

### Contents:

# **Unit-I**

- 1. Prefix related tolocation.
- 2. Prefix related to amount.
- 3. Prefixes related to position.
- 4. More prefix related to amount, colour, position, amount, size, time and negation.

## **Unit-II**

- 1. Suffix related to diagnosis.
- 2. Accepted abbreviations/Documentation terms.

# **Unit-III**

- 1. Terms related to Prescription
  - a. Count/Quantity
  - b. Route of Administration
  - c. Formulation
  - d. Frequency of Administration
  - e. Common Medical and Prescription Abbreviations

- 1. Paramedics-Six in One, Jaypee Brothers
- 2. https://www.researchgate.net/publication/299904533\_Medical\_Terminology\_Suffixes
- 3. https://www.researchgate.net/publication/299904475\_Medical\_Terminology\_Prefixes
- 4. https://www.drbeen.com/blog/prescription-writing-latin-terms/
- 5. https://www.drugs.com/article/prescription-abbreviations.html

# 302: HEALTH INFORMATION SYSTEM AND SOFTWARE

## **Objective:**

This subject will provide models of HIS and help the student develop a subsystem for healthcare management. It will be based OIL experiential learning where the student will develop a subsystem in all its aspects.

### Contents:

### **Unit-I**

- 1. Basic Information Concepts
  - a. Data and Information
  - b. Classification of Information
  - c. Quality of Information
  - d. Resources of Information
- 2. Management information system
- 3. Executive Information System
- 4. Decision Support system
  - a. Meaning and Parameters
  - b. Group Decision support System, Components, Features, Software tools of GDSS.
  - c. Programmed, Semi Programmed & Non Programmed Decisions, Differences.

### **Unit-II**

- 1. Hospital Information System
  - a. Meaning, Genesis, scope
  - b. Important modules of Hospital Management System
  - c. Basic management cycles in hospitals
  - d. Categories of information system in hospitals
  - e. Sources of health information
  - f. Uses of health and hospital data managing information system
  - g. Need of information in hospital
  - h. Advantages of Hospital Information Systems

### **Unit-III**

- 1. The Electronic health record
  - a. Functions of the health record
  - b. Changing functions of the patients record
  - c. Advantages & Disadvantages of the paper record
  - d. Optically scanned records
  - e. Advantages & Disadvantages of the HER
  - f. Roadblocks and challenges to HER implementation
  - g. The future of HIS

### **Unit-IV**

- 1. Information Technology
- 2. Knowledge management
- 3. IT Advances in public health
- 4. Speech recognition
- 5. CRM(Customer Relationship Management)

- 1. Preventive and social Medicine, K. Park-Bhanot
- 2. Medical Records organization and management, GD Mogli-JAYPEE
- 3. Management Information System, Avdesh Gupta& Anurag Malik-Laxmi Publications
- 4. Davis, G. B. and M. H. Oslon, Management Information Systems-Conceptual Foundations, Structure and Development, TMH, 1998

### 303: PUBLIC HEALTH & EPIDEMIOLOGICAL INTERPRETATION

# **Objectives:**

To provide the students a basic insight into the main features of Indian health care delivery system and how it compares with the other systems of the world.

### Contents:

### **Unit-I**

- 1. Concept of Public Health
  - a. Meaning & definition of Public Health
  - b. Approaches of Public Health
  - c. Epidemiological basis for health care management
  - d. Right to health, Responsibilities of Health

# **Unit-II**

- 1. Public Health Care Services in India
  - a. Evolution of public health systems in India (ancient, colonial & post-independence
  - b. Health Planning in India (Committees, Planning commission, Five year plans, National Health Policies)
  - c. Public health systems in India (Centre, State, District & Village level)
  - d. Health System Models: Full State provision and funding model, NHS Model, Social health insurance model, Minimal State intervention model
  - e. Global Health Models

### **Unit-III**

- 1. Health Programmes & Policies
  - a. Health Planning
  - b. National Health Policy, 2017
  - c. National Health Programmes

### **Unit-IV**

- 1. Concept of disease
  - a. Concept of disease causation
  - b. Natural History of disease
  - c. Ice berg phenomenon of disease-Mode of Intervention
  - d. Infectious Disease Epidemiology (Epidemic, Endemic, Pandemic, Sporadic)
  - e. Measurements of Epidemiology (Mortality, Morbidity)
  - f. Epidemiological Methods: Observational, Analytical, Experimental (basic knowledge)

- 2. Dynamics of disease
- 3. Communicable diseases (Influenza, Encephalitis, Dengue, Malaria, Food Poisoning, Tetanus, HIV/AIDS)
- 4. Non communicable diseases (Diabetes, Obesity, Coronary Heart Disease, Cancer, Blindness)

- 1. Preventive and social Medicine, K. Park-Bhanot
- 2. Medical Records organization and management, GD Mogli-JAYPEE
- 3. Community medicine, AHSuryakantha-JAYPEE
- 4. Community Medicine, AH Suryakantha-JAYPEE
- 5. Principles and practice of community medicine, Asma Rahim-JAYPEE

# **304: MEDICAL RECORD MANAGEMENT**

# **Objectives:**

To have a special training on medical records, its management, its storage and maintenance.

To visualize social importance and impact

### Contents:

### Unit-I

- 1. Introduction
  - a. Definition and Types of medical record, Importance of medical record
  - b. Flow chart of function, Assembling & deficiency check
  - c. Format types of MR, Characteristics of MR, ownership of MR, Maintenance of records in the ward, Content of MR

### **Unit-II**

- 1. Coding, Indexing, Filing, Computerization of MR, Microfilming,
- 2. Report and returns by the record department, Statistical information of Hospital
- 3. ICD 10
- 4. Organizations & management of Medical Records Department
- 5. Process of arranging medical records

### **Unit-III**

- 1. Retention of MR
- 2. Preservation of MR
- 3. Role of MRD personnel in Medical record keeping
- 4. Basic knowledge of legal aspects of Medical Records including
  - a. Factories Act, Workmen
  - b. Compensation Act
  - c. Consumer Protection Act
- 5. Medical Audit

### References

- 1. Preventive and social Medicine, K. Park-Bhanot
- 2. Medical Records organization and management, GD Mogli-JAYPEE
- 3. Medical Records Organization and Management, GD Mogli-Jaypee

### **Practical**

### **305: SOFTWARE MANAGEMENT**

# **Objectives:**

To aware and get proper Knowledge about different software used in various department of Hospital.

### Contents:

Following software should be in lesson plan:

- 1. HINAI software
- 2. IPD management system
- 3. OPD management system
- 4. Store management information system
- 5. ROKTOKOSH(blood bank management system)
- 6. OPD ticket booking
- 7. Transport Management System
- 8. Organ Transplant Registration
- 9. CCU
- 10. Health infrastructure plan monitoring system
- 11. Hospital Management information System
- 12. Vendor portal
- 13. Maternal death surveillance & response

# SEMESTER IV

# 401: BIOSTATISTICS & FUNDAMENTALS OF RESEARCH METHODOLOGY

# **Objective**

This subject intends to familiarize the student with basic statistical tools and techniques and the use of inferential statistics in analyzing quantitative data in the Hospital System.

To provide basic understanding towards research principles and methods. To introduce important analytical tools for research data analysis. To assist in the development of research proposals/reports

### Content:

### Unit-I

- 1. Measures of Central tendency: Mean, Median, Mode
- 2. Measures of Dispersion: Range, Standard deviation
- 3. Concept of Correlation and Regression
  - a. Concept of Correlation using scattered diagram
  - b. Derivation of regression equation
  - c. significance of correlation using student st distribution

### **Unit-II**

- 1. Basic Concept of Population and Sample
- 2. Collection of Data: Primary data, Secondary data
  - a. Method of Collection
- 3. Presentation of Data:
  - a. Tabular presentation
  - b. Frequency distribution
  - c. Diagrammatic representation (Pie diagram, Bar diagram, Histogram, Frequency Polygon)
- 4. Probability
  - a. Meaning & definition of Probability
  - b. Calculation of probability (Repeated trials, Drawing with replacement, drawing without replacement)
  - c. significance of correlation using student st distribution
  - d. Conditional Probability (except Bayes Theorem)
- 5. Concept of discrete and continuous probability distribution
  - a. Normal Distribution
  - b. Poisson Distribution,
  - c. Binomial Distribution

### **Unit-III**

### 1. Foundation of Research

- a. Meaning & Objectives of research
- b. Research process
- c. Wheel of research (Deduction vs. Induction)
- d. Conditional Probability (except Bayes Theorem)

# 2. Research Design

- a. Concept and Importance of Research design
- b. Features of a good research design

### **Unit-IV**

### 1. Interpretation of Data

- a. Types of Research Data- Qualitative Data and Quantitative Data
- b. One sample and two sample test for means of small sample(t-test)
- c. Chi-square test for goodness of fit and independence of attributes
- d. F test for two sample S.D and ANOVA(one way)

# 2. Report Writing

- a. Layout of research report- Title Page, Abstract, Body, Introduction,
   Methods, Sample, Measures, Design, Results, Conclusions, References, Tables,
   Figures, Appendices
- b. Significance of report writing

- 1. Nag, N.K. and Nag, S.K.: Statistics (1st Sem); Kalyani Publishers
- 2. Nag, N.K. and Nag, S.K.: Statistics (2nd Sem); Kalyani Publishers
- 3. Das, N.G: Statistical Methods (Vol-I) McGraw Hill Education(India) Pvt. Ltd.
- 4. Das, N.G: Statistical Methods (Vol-II) McGraw Hill Education(India) Pvt. Ltd.
- 5. Das, Debajyoti and Das, Arati; Statistics in Biology and Psychology: Academic Publishers
- 6. Research Methodology by C. R. Kothari-New Age International Publishers

# **402: FUNDAMENTAL OF INVENTORY MANAGEMENT**

# **Objective:**

The main objective of this subject is to maintain inventory at appropriate level, to avoid excessive or shortage of inventory because both the cases are undesirable, to prepare students for practical problems and fundamentals of inventory management.

### Contents:

### **Unit-I**

- 1. Inventory control
  - a. Definition & objectives of inventory control
  - b. Types of inventory cost
  - c. Types of inventory control System
  - d. Pareto"s law
  - e. ABC/VED/SDE analysis
- 2. Lead time
- 3. Buffer stock-reorder level
- 4. Economic order quantity

### Unit-II

- 1. Basic Knowledge of Hospital Stores management
  - a. Location & Layout
  - b. Types of inventory cost
  - c. Standardization
  - d. Codification & Classification of materials
  - e. Material accounting & physical distribution
  - f. Store documentation
  - g. Condemnation & disposal of scrap
  - h. Surplus & obsolete materials
  - i. Types of stores in hospital
  - j. Preservation of Stores

# **Unit-III**

- 1. Hospital Purchase management
  - a. Vendor selection & evaluation
  - b. Vendor rating
  - c. Methods of payments
  - d. Tendering procedures
  - e. Concept & frame work of supply chain management

## 2. Purchasing process

- a. Meaning of purchasing
- b. Objectives of purchasing
- c. 5 R"s of purchasing
- d. Centralised & Decentralized purchasing
- e. DGS & D- General principles of procurement of medicine
- f. Equipment in DGHS under the MOHFW, GOI

### **Unit-IV**

- 1. Strategies for Hospital equipment Planning and Selection
- 2. Hospital equipment Utilization Distribution Management (Logistics Management)
- 3. Distribution of materials to various departments
- 4. Auxiliary services

- 1. Production (Operation) Management, L.C Jhamp-Everest
- 2. Production and materials management, K. Sridhara Bhatt-Himalaya
- 3. Hospital stores management an integral approach, Shakti Gupta-JAYPEE
- 4. Shakti Gupta, Sunilkanth Hospital Stores Management, Jaypee Brothers
- 5. Srinivasan A.V. (ed), Managing a modem hospital, Chapters 6, 7, 8, 9, Response Books, New Delhi, 2000.
- 6. Gopalakrishna, P., Materials Management, Prentice Hall, New Delhi, 1997.
- 7. Gopalakrishna, P., Purchasing and Materials Management, Tata MC.Graw Hill, New Delhi, 1995

### **403: CLINICAL LAW & MEDICAL ETHICS**

# **Objective:**

To acquaint the students with various legal aspects concerning type and character of the health care organizations and its duties towards patients and its employees. To familiarize the students in matters of liability of hospital medical negligence and medical malpractice in diagnosis, administration of drugs, surgery etc.

### Contents:

### Unit I

- 1. General Law of Contract
  - a. Essentials of a Contract
  - b. Offer and acceptance
  - c. Capacity of Parties
  - d. Free Consent
  - e. Consideration and legality of object
  - f. Void agreement and Contingent Contract

### **Unit-II**

- 1. Consumer Protection Act
- 2. W.B. Clinical Establishment Act
- 3. Legal aspects relating to organ transplantation
- 4. MTP Act

### Unit-III

- 1. Drugs and Cosmetic Acts
- 2. ESI Act
- 3. PNDT Act
- 4. Legal liability of hospitals
  - a. Criminal, civil and tortuous
  - b. Liability for negligence
  - c. Absolute liability and vicarious liability
  - d. Legal remedies available to patients
- 5. Medical ethics
  - a. Ethical Principles & rules
  - b. Core concepts of medical ethics
  - c. Law & ethics-a comparison
- 6. Geneva Declaration

### **Unit-IV**

- 1. Law in relation to medical profession
- 2. Indian Medical degree Act
- 3. IMC act Consent-Implied and Expressed Consent
- 4. Medical Negligence Helsinki declaration on medical research
- 5. ICMR guidelines of medical research Euthanasia
- 6. Ethical framework on decision making

- 1. Commercial Law: Arun Kumar Sen & Jitendra Kumar Mitra
- 2. Medical Ethics: C. M. Francis, Jay Pee
- 3. Anoop Kaushal K, Medical negligence and legal remedies, 3rd edition, universal law Pllblishcr.5. New Delhi, 2004.
- 4. R.K. Chaube, consumer protection and the Medical profession, Jaypee Publishing, New Delhi, 2000.
- 5. Indian Medical council act.
- 6. Goswami, Labor law.
- 7. Commercial Laws N. D. Kapoor

# **404: BIOMEDICAL INSTRUMENTATION**

# **Objective:**

Subject is intended to cover the Operations and Maintenance aspects with reference to minimum Utilization of resources in a hospital.

### Contents:

### Unit-I

- 1. List of common medical equipment
  - a. CT
  - b. MRI
  - c. X-Ray
  - d. USG
  - e. ECG
  - f. Multi-channel machine.
  - g. Infusion Pump.
  - h. Syringe Pump.
  - i. Anaesthesia Machine.
  - j. Heart-Lung Machine.
  - k. IABP
  - I. ABG analysis machine
  - m. USG Doppler
  - n. Echocardiography
  - o. PFT machine
  - p. Ventilator
  - q. Cell saver machine.
  - r. Diathermy
  - s. ACT machine
  - t. Defibrillator
  - u. Incubator- laboratories & neonate.
  - v. Sterilizer- Autoclave, ETO, Plasma.
  - w. Laparoscopy set
  - x. Colonoscopy set.

### **Unit-II**

- 1. Equipment selection guideline.
- 2. Estimation of cost and planning.
- 3. Purchase, installation, commissioning,
- 4. Replacement and buy back policy.
- 5. International and indigenous standards

### **Unit-III**

Maintenance Management

- 1. Objectives.
- 2. Types of maintenance systems.
- 3. Equipment history and documents.
- 4. Maintenance planning.
- 5. Spares management.
- 6. Replacement policy.
- 7. Depreciation and loss of value.

# References

- 1. Medical Technology, application in hospital environment, calibration tests, maintenance of hazards Srinivasan A.V. (ed),
- 2. Managing a modern hospital, Chapters 12, Response Books, New Delhi, Barry, Jay Hazier,
- 3. Principles of Operations Management, Prentice Hall, New Jersey,

# **Practical**

# **405: MINOR PROJECT:**

# Objective

To impart the practical knowledge through observation methods, help formulate a rigorous problem related to hospital on the basis of their observation from hospital.

Practical, help do an independent study, and encourage working in a team

# Pedagogy

Identifying several situations amenable to Project work and make a project Report.

# **Contents**

Every student will do a detailed study on the topic selected for the project, Faculty will examine this and decide on the topic of project.

### The Process involves:

- 1. Formulation of objectives
- 2. Data collection
- 3. Analysis of data
- 4. Inferences, conclusions and recommendations
- 5. Summary
- 6. Preparing a bibliography

# SEMESTER - V

# **501: SUPPORT, UTILITY & CLINICAL SERVICES-I**

# **Objectives:**

To enable the students gain insights into various aspects like importance, functions, policies and procedures, equipping, controlling, co-ordination, communication, staffing, reporting and documentation of both clinical and non clinical services in a hospital.

#### Contents:

# **Unit-I**

- 1. Support and utility services
  - a. Concept & Meaning
  - b. Importance
  - c. Different services

# **Unit-II**

- 1. Clinical services
  - a. Functions & Location
  - b. work flow
  - c. physical facilities
  - d. design & space requirement
  - e. staffing
  - f. equipment
- 2. Managerial issues of the following departments
  - a. Operation Theatre (OT)
  - b. Outpatient Department
  - c. Emergency Department

#### **Unit-III**

- 1. Support services
  - a. Functions & Location
  - b. work flow
  - c. physical facilities
  - d. design & space requirement
  - e. staffing
  - f. equipment
- 2. Managerial issues of the following departments
  - a. Radiology
  - b. Diagnostic and therapeutic
  - c. CSSD
  - d. Nuclear Medicine

### **Unit-IV**

- 1. Utility services
  - a. Functions & Location
  - b. work flow
  - c. physical facilities
  - d. design & space requirement
  - e. staffing
  - f. equipment
- 2. Managerial issues of the following departments
  - a. Laundry
  - b. Housekeeping
  - c. Dietary service
  - d. Security services

### **Unit-V**

1. Hospital Infection control

### References

- 1. Hospital facilities planning & management, Gd Kunders-TMH
- 2. Principles of hospital administration & planning, BM Shakharkar-JAYPEE
- 3. Hospital administration, DC Joshi & Mamta Joshi-JAYPEE
- 4. Essentials for Hospital support services and physical Infrastructure, Madhuri Sharma-JAYPEE
- 5. The hospital administrator, MA George-JAYPEE
- 6. Hospitals and Nursing homes planning, organizations and management, Syed Amin Tabish-JAYPEE
- 7. Hospital administration, CM Francis & Mario C Desouza-JAYPEE

# **502: SUPPORT, UTILITY & CLINICAL SERVICES-II**

# **Objectives:**

To enable the students gain insights into various aspects like importance, functions, policies and procedures, equipping, controlling, co-ordination, communication, staffing, reporting and documentation of both clinical and non-clinical services in a hospital.

#### Contents:

### **Unit-I**

- 1. Clinical services
  - a. Functions & Location
  - b. work flow
  - c. physical facilities
  - d. design & space requirement
  - e. staffing
  - f. equipment
- 2. Managerial issues of the following departments
  - a. Ward management
  - b. Intensive care unit
  - c. Nursing Services

### **Unit-III**

- 1. Support services
  - a. Functions & Location
  - b. work flow
  - c. physical facilities
  - d. design & space requirement
  - e. staffing
  - f. equipment
- 2. Managerial issues of the following departments
  - a. Blood Bank
  - b. Pharmacy
  - c. Physical medicine and rehabilitation

### **Unit IV**

- 1. Utility services
  - a. Functions & Location
  - b. Work flow
  - c. Physical facilities
  - d. Design & space requirement
  - e. Staffing
  - f. Equipment

- 2. Managerial issues of the following departments
  - a. Transport service
  - b. Maintenance management
  - c. Mortuary

# References

- 1. Hospital facilities planning & management, Gd Kunders-TMH
- 2. Principles of hospital administration & planning, BM Shakharkar-JAYPEE
- 3. Hospital administration, DC Joshi & Mamta Joshi-JAYPEE
- 4. Essentials for Hospital support services and physical Infrastructure, Madhuri Sharma-
- 5. The hospital administrator, MA George-JAYPEE
- 6. Hospitals and Nursing homes planning, organizations and management, Syed Amin Tabish-JAYPEE
- 7. Hospital administration, CM Francis & Mario C Desouza-JAYPEE

### **503: QUALITY MANAGEMENT**

# **Objectives:**

To provide basic knowledge on the concepts of TQM on s journey towards continuous improvement of quality patient care.

### Contents:

#### **Unit-I**

- 1. Quality Care and Quality Management
  - a. Approaches to measurement of Quality.
- 2. Techniques of Quality Management in Hospital
  - a. Improving Hospital Performance
  - b. Patient Participation
  - c. Quality Health Care through Patience Satisfaction
  - d. Conceptual model of potential Contribution in quality in the health care system
- 3. Organization wide Quality Improvement in Health Care
  - a. Introduction
  - b. Organization wide Quality Improvement fundamentals
  - c. A Quality Improvement model of daily Patient Care
  - d. Quality Assurance and Quality improvement
  - e. Attributes of Quality in Health Care
  - f. Attributes of a Good Patient Practitioners Relationship

#### **Unit-III**

- 1. Total Quality Management
  - a. Contribution of Quality Gurus
  - b. Tools of quality control
  - c. Approaches to Quality Management in hospitals

#### **Unit-IV**

- 1. Bench marking
- 2. Business Process Reengineering
- 3. Brainstorming
- 4. Accreditation for Hospitals

### References

- 1. Quality management in healthcare, S.K Joshi-JAYPEE
- 2. Hospital administration, CM Francis & Mario C Desouza-JAYPEE
- 3. Hospital & Health Services Administration Principles & Practice, Syed Amin Tabish-OXFORD
- 4. A Text on Total Quality Management, Asish Bhatnagar Vrinda Publication

# **504: STRATEGIC MANAGEMENT**

# **Objectives:**

This subject will integrate all management concepts to look at the organization from futuristic - both long and short term point of view. The emphasis will be on organizational analysis, planning and formulation of strategies.

#### Contents:

#### **Unit-I**

- 1. Introduction to strategic management
  - a. Vision
  - b. Mission
  - c. Values
  - d. Policy
- 2. Strategic management process
- 3. SBU

# **Unit-II**

- 1. Porter's Value Chain
- 2. Porter's Five Forces & Application in Hospital
- 3. Mckinsey's 7s Framework
- 4. Industry characteristics analysis
- 5. Nature and degree of competition

# **Unit-III**

- 1. Organizational analysis
- 2. Identification & Analysis of Strength-Weakness-Opportunity-Threat(SWOT)
- 3. Critical success factor
- 4. Environmental Scanning
- 5. Business Process Reengineering(BPR)
- 6. Corporate strategy analysis
- 7. BCG Matrix
- 8. GE 9Cell Matrix

### **Unit-IV**

- Balance Score Card(BSC)
- 2. Contingency planning
- 3. Product life cycle
- 4. Strategic Implementation

### References

- 1. Oster Sharon M. Strategic Management for non profit organizations, Oxford publishers, New Delhi.
- 2. Lawrence R. Jauch and WF Glueck, Business Policy and strategic management, 6th edition, Frank brothers, New Delhi, 2003.
- 3. Srivastava; Management Policy ,!nd Strategic Management; Himalaya Publications, Mumbai. . Allio, Robert J;
- 4. The practical Strategist Business and corporate strategy for 1990s, Indus publications, 1994.
- 5. Kazhmi, Business Policy and strategic management, Tata Mc Graw Hill, New Delhi, 2002.

### **Practical**

# **505: HOSPITAL VISIT AND BMW VISIT**

# **Objective**

To have a practical exposure of various departments of a hospital and special to understand the significance of nosocomial infections, biomedical waste and its proper collection, segregation, transportation, disposal.

It is included in the syllabus to make the students aware of the functioning of different departments of hospital.

# SEMESTER - V

# **601: HEALTH INSURANCE AND MEDICAL TOURISM**

# **Objective:**

The primary aim of this subject is to acquaint students to the concept of health insurance, product development, and various health insurance products-both at individual and group level, the economic services of health insurance, underwriting of health insurance policies, marketing of insurance policies, claims management, third-party administration etc., so that the students are ready for the challenges of the healthcare insurance which is emerging as a sector holding great promise.

#### Contents:

#### Unit-I

- 1. Introduction
  - a. History of Health Insurance
  - b. Principles of Health Insurance
  - c. Health Insurance Products
  - d. Group Insurance Products
  - e. Concepts of insurance, life and nonlife

#### Unit-II:

- 1. Introduction to Claims management
- 2. Cashless & Reimbursement claim
- 3. Significance of claims settlement
- 4. Third Party Administrator(TPA)

### **Unit-III**

- 1. Economic and financial management of Health Insurance
- 2. Marketing and servicing of Health Insurance
- 3. IT Applications and Legal framework in Health Insurance
- 4. Ethical issues in insurance

#### **Unit-IV**

- 1. Introduction to Medical tourism
- 2. Concept
- 3. Advantage & Disadvantage
- 4. Benefits of Medicaltourism
- 5. Medical Tourism Organizations
- 6. Trends in Demand for Medical Tourism
- 7. Medical Tourism Potentials of India

# References

- 1. Mediclaim & Health Insurance by Prof Kshitij Patukale
- 2. Do We Care: India's Health System by K. Sujatha Rao
- 3. Principles of HOSPITAL Administration and Planning by B M Sakharkar
- 4. Kenneth Black, Jr. Ilarold D. Skipper, Jr, Lire and Health Insurance, thirteenth edition, Pearson Education Pvt. Ltd., Delhi, 2003.
- 5. Board of editors, Group and Health Insurance vol. I -III, the ICFAI University Press, Hyderabad, 2004.

# 602: BIOMEDICAL WASTE & DISASTER MANAGEMENT

# **Objectives:**

To understand the significance of nosocomial infections, biomedical waste and its proper collection, segregation & disposal. Improve the understanding of disaster risk, hazards, and vulnerabilities & strengthen the disaster prevention.

# Contents:

### **Unit-I**

- 1. Definition of Biomedical Waste
- 2. Definition of Different type of Biomedical Waste
- 3. BMW-Segregation, collection, transportation, disposal
  - a. Biomedical Waste (Management and Handling) Rules 1998, amendment 2016

## **Unit-II**

- 1. BMW Management & methods
- 2. Modern technology for handling BMW
- 3. Monitoring & controlling of cross infection (Protective devices)
- 4. BMW from Administrative point (Budget, Health check-up, Insurance)
- 5. Disposal techniques & Pre-treatment

# Unit- III

- 1. Concept and basics of disaster Management and mass casualties Management
  - a. Types of disaster: Natural & Manmade disasters
  - b. Definition
  - c. Needs for disaster planning
  - d. Assessment of Disaster Preparedness
  - e. Disaster cycle

# **Unit-IV:**

- 1. Triage Fire Hazards
- 2. Fire Manual Guideline
- 3. Elements of Fire-Fire Hazard
- 4. Cause of Hospital Fire-Fire points
- 5. Rules for fire fighting
- 6. Disaster management Rules

# References

- 1. Hospital waste management and its monitoring, Madhuri Sharma-JAYPEE
- 2. Hospital Management S. L. Goel
- 3. Hospital Administration Francis
- 4. Bio-Medical Waste Act & Rules Govt. of India
- 5. Current Issues In BMW Waste Handling-ISHA, Bangalore
- 6. Preventive and Social Medicine by K. Park
- 7. Disaster Management by Dr. S Arulsamy

## 603: ENVIRONMENT & ECOLOGY

# **Objectives:**

To create the awareness about environmental problems among people, impart basic knowledge about the environment and its allied problems.

#### Contents:

#### **Unit-I**

- 1. General environment & ecology
  - a. Meaning of Environment
  - b. Ecology for Hospital Administrators.
  - c. Environment (Protection) Act 1986 & its importance for Hospital Administration
  - d. Role of NGOs in environment protection
  - e. Elements of Ecology
  - f. Brief discussion on Ecological balance and consequences of change.
  - g. Principles of environmental impact assessment
  - h. Environmental Impact Assessment report (EIA)

# **Unit-II**

- 1. Air Pollution and Control
  - a. Factors responsible for causing Air Pollution in Hospitals
  - b. Ecology for Hospital Administrators.
  - c. Sources & effects of Air pollutants in the Hospital context
  - d. Role of NGOs in environment protection
  - e. Primary & Secondary pollutants
  - f. Green House Effect & depletion of Ozone Layer
  - g. Indoor air pollution
  - h. Brief discussion on The Air(Prevention & Control of Pollution ) Act,1989

#### **Unit-III**

- 1. Water Pollution and Control
  - a. Brief Discussion on Hydrosphere, natural water
  - b. Pollutants: their origin and effects
  - c. Financial implication of water pollution control and steps required to be taken
- 2. Noise Pollution and Control
  - a. Sources
  - b. Effects
  - c. Standards & control
  - d. Recommended noise level in hospital
  - e. Measures to control noise in hospitals

# **Unit-IV**

- 1. Land Pollution
  - a. Brief understanding of lithosphere
  - b. Pollutants (municipal, industrial, commercial, agricultural, hospital, hazardous solid waste)
  - c. Differences between hazardous and toxic wastes
  - d. Sanitary land filling

# References

- 1. Environmental Science, Cunningham, TMH
- 2. Environmental Studies, A. K. De & A. K. De, New Age International
- 3. Environmental Pollution Control Engineering, C. S. Rao, New Age International
- 4. Environmental Management, N.K. Oberoi, EXCEL BOOKS
- 5. Ecosystem Principles & Sustainable Agriculture, Sithamparanathan, Scitech

# **SPECIAL PAPERS**

- 1. 604A: Public Relation
- 2. 604B: Occupational Health
- 3. 604C: Front office Management
- 4. 604D: Hospitality Management
- 5. 604E: Emergency service Department

# **604: PUBLIC RELATION**

# **Objective:**

This subject will give the insight into the application of public relation in various situations in a Hospital environment and student will be aware about that

#### Contents:

#### **Unit-I**

Introduction: Definition, function, principles, planning and implementation. Emerging trends of public relation.

### Unit II

Role of PR in healthcare. Qualities of hospital PRO. Functions, organization of PR Department. Importance of PR in Hospital Environment Management:

- Media
- Government
- Patients & Their Relations
- Employee Relations
- Political Parties

#### **Unit III**

PR in Crisis management, Event management in hospitals. Laws and ethics of PR

#### **Unit IV**

Role of PR in marketing. PR, advertisement and propaganda. PR agencies. PR counselling

#### References

- 1. Public Relations Principles and Practices by Iqbal S Sachdeva
- 2. Principles of hospital Administration and Planning by B M Sakharkar

# **604 B: OCCUPATIONAL HEALTH**

# **Objective:**

This subject will aim that the student will be know the promotion and maintenance of the highest degree of physical, mental and social well-being, health hazards in occupations.

#### Contents:

## Unit-I

Occupational environment: Man & physical. Chemical & biological agents. Occupational hazards: Physical, Chemical, Mechanical, Psychological hazards.

#### **Unit-II**

Occupational diseases: Skin diseases, Lung diseases, Accidents & injury, Radiation hazards, Control of hazards in industries.

### **Unit III**

Indian Factories Act 1948, ESI Act 1948, Workman's Compensation Act 1952.

# References

1. Preventive and social Medicine, K.Park-Bhanot

### **604 C: FRONT OFFICE MANAGEMENT**

## **Objective:**

This subject aims to manage the daily operations of the Front Desk, ensuring maximum efficiency and productivity; build and develop a strong Front Desk team, through ongoing training and performance management; carry out administrative duties as required to maintain the smooth running of the Front Office Department.

### Contents:

### **Unit-I**

Introduction, Definition & functions of Front office Management & Department.

#### **Unit-II**

Planning of front office department: Physical facilities, location and layout of the department. Equipment required in the department. Organizational structure of the department. Staffing pattern of the department. Job description of the employees of the front office department. Qualities of a good front office representative.

### **Unit-III**

Managing front office-patient admission, telephone etiquette, cash and bill section. Qualities of a good telephone operator.

Reception activities

- Importance of reception
- Attributes of a good reception & receptionist

## **Unit-IV**

Role of the front office in interdepartmental communication.

Team work in front office

- Team building
- Importance of team building in hospitals
- characteristics of effective team

Main problem areas in Front Office Department. Time & Motion Study

# **604 D: HOSPITALITY MANAGEMENT**

# **Objective:**

The student will be known and visualize into the future the needs and expectation of the community from the hospitals

## Contents:

- 1. Treat your patients and treat like your guest
- 2. Changing mind set of patients necessitate Hospitality Management
- 3. Aims and objectives of Hospitality Management (Commercial point)
- 4. Methods of Hospitality Management in a Hospital set-up
- 5. Attractive look, Effective conversation, Multi lingual, smart dress.
- **6.** Role of Hospitality Management in a Hospital set-up
- **7.** Etiquette and manners

### References

- 1. Hospital facilities planning & management, Gd Kunders-TMH
- 2. Principles of hospital administration & planning, BM Shakharkar-JAYPEE
- 3. Hospital administration, DC Joshi & Mamta Joshi-JAYPEE
- 4 . Essentials for Hospital support services and physical Infrastructure, Madhuri Sharma-JAYPEE
- 5. The hospital administrator, MA George-JAYPEE
- 6. Hospitals and Nursing homes planning, organizations and management, Syed Amin Tabish-JAYPEE
- 7. Hospital administration, CM Francis & Mario C Desouza-JAYPEE

### **604 E : EMERGENCY SERVICE DEPARTMENT**

# **Objective:**

The student will be able to know about the detail service provide by emergency department and its physical infrastructure, procedure.

### Contents:

#### Unit-I

Location of Emergency in hospital.

Basic lay out & functions of Emergency-

- Receiving patients
- Patient examination zone
- Patient investigation zone
- Procedure room
- Cardio Pulmonary Resuscitation Unit
- Dead patient barrier
- EMO's Office
- Nursing Station

#### Unit-II

Infrastructural facilities-

- Office of EMO
- Nursing Office

Equipment, Legal procedure system.

**Emergency Operation Theatre-**

- Arrangement of instruments and oxygen for minor Operation
- Sterilization and fumigation of O.T. Room

# **Unit-III**

Admission procedure.

Billing for day care procedure in Emergency Dept.

Staffing-

- Medical
- Para Medical
- Security

# References

- 1. Hospital facilities planning & management, Gd Kunders-TMH
- 2. Principles of hospital administration & planning, BM Shakharkar-JAYPEE
- 3. Hospital administration, DC Joshi & Mamta Joshi-JAYPEE
- 4 . Essentials for Hospital support services and physical Infrastructure, Madhuri Sharma-JAYPEE
- 5. The hospital administrator, MA George-JAYPEE
- 6. Hospitals and Nursing homes planning, organizations and management, Syed Amin Tabish-JAYPEE
- 7. Hospital administration, CM Francis & Mario C Desouza-JAYPEE

# **Practical**

### 605: HOSPITAL REPORT PRESENTATION:

# Objective

Since the entry qualification for this bachelor degree program is graduation in any discipline exposure to and understanding of the internal working of a hospital is essential for every student to appreciate and assimilate the learning in the educational programme. The subject is designed to facilitate this learning-objective and is based on the principle of "learning by observation". This subject will also help to learn "working in teams".

# **Pedagogy**

All departments, administrative and clinical, will be divided into "Activity Clusters" in a typical large hospital. Every student, in the team, will be exposed to every activity area in rotation. The student-team will visit Cluster on the allotted days and study the activities as per the guideline provided by the faculty.

The students are encouraged to make Power Point Presentations.

#### **Evaluation**

Total marks of 100 will be distributed as:

- 50 for the content of reports
- 4 30 for the presentation on the assigned department
- 20 for attendance

The evaluation will be done by a panel of three members including head of the concerned department of the hospital.

#### Contents

The program will start right from the beginning of the 6<sup>th</sup> semester. A brief introduction of the hospital, formation, of teams, and announcement of schedules will precede this. Hospital project schedule is minimum for two days in each activity zone. The structure of learning will be:

- 1. Objectives of the activity Cluster
- 2. Hierarchy and structure
- 3. Identifying major and critical activities
- 4. Studying the processes of the activity luster from systems point of view: inputprocess-output
- 5. Identification of areas in need improvement.
- 6. Each team will be assigned one major process of the department and they will be asked to present the details of the particular process through systems framework.
- 7. The students will be detailed for duties along with the departmental executive which is intended to acclimatize students to the environment of the hospital, so that they would appreciate special demands and understand various protocols, etc.

# 606: PROJECT ON SPECIAL PAPER:

# **Objective:**

To understand, enhance knowledge and brief idea about respective departments in hospital regarding special papers.

#### Contents:

Each student has to submit individual project report regarding their respective special papers, which are following-

- 1. Public Relation
- 2. Occupational Health
- 3. Front Office Management
- 4. Hospitality Management
- 5. Emergency service department

#### **PRACTICAL**

# Objective

To have a practical exposure of various departments of a hospital. It is included in the syllabus to make the students aware of the functioning of different departments of hospital.

# **Pedagogy**

It will consist of different departments in hospital during the course of "Hospital Report presentation" in Sixth Semester of "Internship" and Hospital visit and biomedical visit in Semester Five and "Minor project" in fourth semester.

## PRACTICAL TRAINING

# Practical session should be divided into following activity area:

- 1. EDP/IT Department
- 2. Reception
- 3. Registration
- 4. Admission
- 5. Billing & Discharge
- 6. OPD Services
- 7. Public Relation Office
- 8. Pharmacy Services
- 9. Stores
- 10. House Keeping
- 11. Laboratory Services

- 12. Imaging Services
- 13. Personnel / H R Dept.
- 14. Laundry & Linen Services
- 15. Kitchen & Dietary Services
- 16. Marketing
- 17. Computerized Medical Record
- 18. Security Services
- 19. Transportation Services
- 20. Wards
- 21. Central Sterile Supply Dept.
- 22. Library in Hospital
- 23. Emergency
- 24. Critical Care Unit
- 25. Medical Record
- 26. Operation Theatre
- 27. Maintenance Department
- 28. Bio-Medical Department
- 29. Diagnostic Imaging
- 30. Dental Service
- 31. Dialysis Unit
- 32. Burn Units
- 33. Blood Bank
- 34. Mortuary
- 35. Telemedicine
- 36. Medical transcription

# Specification of the activity areas

# **EDP/IT Department**

Participation in the process of:-

- 1. Lay out of EDP / IT Department
  - a. Server Room
  - b. EDP Lab.
  - c. Manager"s Office
  - d. Hardware Engineer
  - e. Software Engineer / Programmer
  - f. Data Entry Operator
- 2. Different sections for data entry
- 3. Data collection

- 4. Data analysis
- 5. Dissemination of information
- 6. Storing and preservation of information / record
- 7. Optimum utilization of LAN / WAN / MAN system
- 8. Different modules used in EDP through ERP system like; Registration, OPD, Admission, Discharge, Billing, Emergency, Laboratory, Nursing Station, Operation theatre, Stores, Pharmacy, Pay-roll, different modules of Oracle and Envision system, Management Information System.
- 9. Maintenance of Computer including its accessories
- 10. Updating of modules on need based
- 11. Application of antivirus system

# Reception

Participation in the process of:

- 1. Receiving patients and providing information
- 2. Providing information of availability of doctors
- 3. Fixing appointment with doctors
- 4. Arrangement of direct admission for urgent cases
- 5. Public Address System
- 6. Supervising internal transportation system
- 7. No. of Receptionist required to handle the Desk

# Registration

Participation in the process of:

- 1. Infrastructure Lay out, Physical facilities,
- 2. Patient registration
- 3. Assisting in collection of hospital charges
- 4. Transmitting information to respective doctor
- 5. Assisting in sending patient to the respective departments
- 6. Computer based functional activity by Receptionist

### Admission

Involvement in the process of:

- 1. Documentation of registration for Admission of patients
- 2. Preparation of files with relevant papers
- 3. Observing the process of receiving advance payment during admission either by cash or credit card
- 4. Formalities of procedures for ensuring availability of payee"s fund
- 5. Distribution of visiting card, literatures, brochure etc. to the client
- 6. Transfer of Patient to ward
- 7. Ambulance management and billing
- 8. Deployment of no. of Receptionist-cum-Office Assistant
- 9. Foreign Exchange facilities

# **Billing & Discharge**

Involvement in the process of:-

- 1. Assimilation of information through LAN from the different departments
- 2. Checking of data in the computer
- 3. Observation of different billing system like;
  - a. Cash Billing As per hospital"s prevailing rate schedule
  - b. TPA Billing As per hospital"s prevailing rate schedule
  - c. Copt. Billing Tailor-made billing as per agreement
- 4. Handing over the bill to the patient party
- 5. Providing Birth Certificate, Amputed Certificate, Death Certificate, Referral Letter, as and when required
- 6. Providing discharge certificate in original along with all relevant documents for cash payee patient and photo copy of discharge certificate to the corporate and TPA patients
- 7. Deployment of no. of Receptionist-cum-Office Assistant
- 8. Facilities Computer, Swapping Machine, Note Counting Machine, Communication facility

# **OPD Services**

#### Involvement in:

- 1. Layout of Reception Desk in OPD
- 2. Registration and department wise OPD Card segregation
- 3. Location of the concerned Department
- 4. Reception of patients
- 5. Physical facilities in OPDs
- 6. Close supervision of Doctor"s Chamber for the followings:-

## Availability of:

- a. Prescription Pad,
- b. Stethoscope
- c. View Box,
- d. Bed Trolley
- e. Weigh Machine
- f. Torch Light
- g. Gloves
- h. Liquid soap and towel
- 1. Records maintenance of OPD
- 2. Supervision of patient waiting area and its seating arrangement
- 3. Adequate communication with other departments / units / wards etc.
- 4. Public Addressing System
- 5. Deployment of Staff like Jr. Doctor, Para Medical Staff, Receptionist, Assistant etc.

### **Public Relations Office**

#### A. General

### Helping patients regarding the followings:

- 1. Information Over phone / e-mail / letter / fax / across the table
- 2. Dispatch reports for outstation patients
- 3. Providing different types of brochure
- 4. Liaison between doctor and patient
- 5. Appointment for doctors
- 6. Estimation of treatment expenditure
- 7. Billing status of IPD patient
- 8. Visiting indoor patients to enquire about their facilities
- 9. Availability of Public Relations Officer everyday including Sundays and holidays

# **B.** Corporate

- 1. Coordination of admission of company patients and patient having medical insurance for cashless treatment.
- 2. Ensuring validity of ID card and referral letter
- 3. Filling up the pre-authorization letter and facsimile the patient case history, investigation report, clinical notes etc. to the concerned TPA for verification and approval.
- 4. Provide different additional queries regarding the health status and treatment procedure of the patients to concerned TPA.
- 5. Informing the admission counter about the status of the patient awaiting admission.
- 6. Close liaison with concerned department or doctor of Corporate Houses
- 7. Coordination with Billing and other Depts. for collection of paper documentation

# **Pharmacy Services**

#### Involvement in:

- 1. Space requirement as per act
- 2. Lay out
- 3. Storage facility-different set up for different type of drugs
- 4. Equipment
- 5. Organizational structure (role and function)
  - a. In-charge
  - b. Pharmacist and Chemist
  - c. Sales Technician
  - d. Cash Counter
  - e. Computer Operator / Office Assistant
  - f. Attendant
- 6. Purchase of drugs-disposables, consumables etc.
- 7. Purchase of food items
- 8. Quality control
- 9. Proper storage of drugs
- 10. Sales policy
- 11. Record maintenance
- 12. Preparation of Accounts
- 13. Pharmacy Audit

#### **Stores**

Observation and participation in:

Different stores like Medical Stores, Linen Stores, Housekeeping Store, Maintenance Store, Printing & Stationary Store etc.

- 1. Space requirement
- 2. Lay out (as per category of store)
- 3. Storage facility, proper set up for particular type of medical and non-medical items
- 4. Issuance policy
- 5. Safety measure
- 6. Practical application of E O Q
- 7. Minimum stock level
- 8. Deployment of staff like;
  - a. In-charge
  - b. Store keeper
  - c. Record maintenance clerk
  - d. Attendant / Delivery person
  - e. Security etc.
- 9. Proper storage procedures
- 10. Indents
- 11. Issue of item as per indent
- 12. Record keeping of issued materials as well as balance stock
- 13. Delivery system
- 14. Physical verification of stored items periodically

# **House Keeping**

Observation of:-

- 1. All departments, wards and adjacent areas within the hospital premises
- 2. Cleaning process Moping, Sweeping, Washing, Shampooing (Carpet), Brooming
- 3. Process of selection of detergents and disinfectants
- 4. Disposal of waste materials
- 5. Sources of waste in different areas of hospital
- 6. Categories of waste identification in the hospital
- 7. Waste segregation according to Biomedical Waste Management & Handling Rules
- 8. Application of colour code, including poly pack, bin etc.
- 9. Waste transportation process
- 10. Internal waste storage system
- 11. Disposal process of biomedical waste (solid & liquid)
- 12. Management of infected healthcare worker
- 13. Use of Personnel Protective Equipment (PPE)
- 14. Supervision / leadership style

- 15. Staff training for precaution taken
- 16. Pest control system
- 17. Record maintenance
- 18. Waste Tracking
- 19. Equipment for wet and dry scrubbing machine
- 20. Usage of vacuum cleaner
- 21. Garbage Trolley
- 22. Roll of
  - a. Operation Manager,
  - b. Housekeeping Manager,
  - c. Supervisor (round the clock) in different shift
  - d. Sweeper
  - e. Ward boy

# Second Semester Laboratory Services

### Observation of:-

- 1. Location
- 2. Structural facility
- 3. Administrative Area
- 4. Laboratory equipment
- 5. Lighting in laboratory
- 6. Laboratory furniture
- 7. Special mechanical and electrical equipment
- 8. Various functional units
  - a. Clinical pathology
  - b. Haematology
  - c. Bio Chemistry
  - d. Histology
  - e. Bacteriology and Serology
- 9. Auxiliary service area
- 10. Collection of samples and delivery of reports
- 11. Requirements for various quality accreditation systems
- 12. Organization
  - a. Sr. Microbiologist
  - b. Microbiologist
  - c. Lab. In-charge
  - d. Technician
  - e. Research Fellow
  - f. Computer Operator
  - g. Attendant

# **Imaging Services**

#### Observation of:-

- 1. Layout of X-ray rooms
- 2. Various types of imaging machines and its usages
- 3. Maintenance of imaging machines
- 4. Protective gears
- 5. Precaution taken for Hazardous radio activity
- 6. Licenses required
- 7. General and special investigations
- 8. Layout of Reception area
- 9. Dress changing area of patient
- 10. Film processing room
- 11. Analysis of developed film and preparation of report
- 12. Storing of developed film
- 13. Delivery of film to patient / ward
- 14. Roll of Radiologist, Technicians, and Office Assistant of Radiology Dept.

# Personnel / H. R. Department

### Observation of:-

- 1. Present employee status
- 2. Selection and recruitment procedure
- 3. Employee appraisal system
- 4. Employee training and development system
- 5. Retirement and retirement benefit system
- 6. H. R. Audit
- 7. Wage Administration

# **Laundry & Linen Services**

#### Observation of

- 1. Location
- 2. Work flow
- 3. Physical facilities of Laundry
  - a. Receiving, Storing, Sorting, washing area
  - b. Central Disinfection Area
  - c. Cleaned Linen processing room
  - d. Laundry Manager"s Office
  - e. Staff Room
  - f. Sewing and inspection area

- g. Supply storage room
- h. Solution Preparation area
- i. Cleaned Linen issue area
- j. Natural ventilation and light
- k. Free Linen movement area
- 4. Other facilities
  - a. Adequate Water supply
  - b. Drainage system
  - c. Adjacent power supply
  - d. Steam
  - e. Compressed air
- 5. Arrangement of equipment
- 6. Soiled linen receiving from ward, OT, other areas
- 7. Process of sorting and cleaning, washing, drying, ironing
- 8. Collection and storing process of cleaned linen
- 9. Sorting of discarded linen and sending them to the Store
- 10. Process of linen distribution
- 11. Maintenance of hygiene
- 12. Infection control process
- 13. Process of co-ordination among the related departments
- 14. Manpower for Laundry
  - a. Laundry Manager
  - b. Supervisor
  - c. Supporting staff

# **Kitchen & Dietary Services**

- 1. Overview of kitchen lay out and its adjacent areas
- 2. Physical facilities
  - a. Receiving area
  - b. Washing area
  - c. Preparation area
  - d. Cooking area
  - e. Storing area
  - f. Food Distribution area
  - g. Garbage disposal area
  - h. Office of Kitchen Manager
  - i. Office Kitchen Staff
- 3. Work Flow

- 4. Patient visit and observation of the diet chart preparation
- 5. Observation and process of :
  - a. Coordination with Dietician before preparing process of food for patient
  - b. Receiving and storage of perishable and non-perishable food
  - c. Process of calculating the quantity of perishable & non-perishable items to cook
  - d. Washing, cutting, preparation and cooking process
  - e. Storage of cooked food and precaution to be taken
  - f. Delivery process of hot food (Hot Trolley) to patient according to diet chart
  - g. Process of distribution of food in the cafeteria and dining hall
  - h. Maintenance of hygiene by kitchen staff
  - i. Safety measure
  - j. Receiving of soiled utensils and left over food
  - k. Collection of utensils and washing process
  - I. Garbage disposal system
  - m. Maintenance of Accounts
  - n. Pest control system
  - o. Process of supervision and leadership style
  - p. Educational programme, research, dietary counselling etc.
  - q. Periodical audit

### 6. Organization

- a. Qualified Kitchen Manager
- b. dietician
- c. Head Cook, Cook, Stuart, Masalchi, Helping Staff

# Marketing

Observation / involvement in:-

- 1. Office Lay out
- 2. Different types of advertisement for projection
- 3. Fixture required for marketing
  - a. Banner
  - b. Leaflet
  - c. Hoarding
  - d. CD/VCD/DVD
- 4. Media Management (Print, Electronic)
- 5. Event Management (Camp, Seminar, CME)
- 6. Institutional / Corporate marketing
- 7. Direct marketing

- 8. Channel / Franchise marketing
- 9. Data analysis
- 10. Patient feed back
- 11. Organization
  - a. Head of Marketing
  - b. Departmental Manager
  - c. Regional and Territory Manager
  - d. Marketing Executive
  - e. Office Assistant

# **Computerization of Medical Record**

Observation / involvement in

All elements of physical records maintenance plus

- 1. Alphanumerical data
- 2. Machine generated data
- 3. Image data
- 4. Interpretation of data
- 5. Derived data
- 6. Storage process of electronic data
- 7. Data classification
- 8. ICD 10 System and its use in electronic records maintenance system.

# **Security Services**

Observation of:-

- 1. Security room and posts
- 2. Security services in the hospital
- 3. Role of Security during patient visiting hours
- 4. Traffic control inside the hospital
- 5. Maintenance of fire precautions
- 6. Process of medico legal activities

# **Transportation Services**

Observation of:

- 1. Different internal and external transport
- 2. Different ambulances
- 3. Ambulances earmarked for communicable disease
- 4. Facilities given in the emergency ambulance
- 5. Maintenance of ambulance
- 6. Maintenance of internal transportation

## Wards

#### Observation of:-

- 1. Ward Composition Beds Patient Ratio
- 2. Lay out
- 3. Types of ward
- 4. Physical facilities
  - a. Nursing Station
  - b. Doctor"s room
  - c. Dirty utility room
  - d. Dress Changing room
  - e. Sanitary facilities
  - f. Dressing room for minor treatment
  - g. Isolation room
  - h. Ward Pantry
  - i. Day room
  - j. Barrier Nursing
  - k. Other facilities
  - I. Ward side Laboratory
    - I. Linen Store
    - II. Drug Store etc.

# 5. Other Equipment facilities

- a. Electronic Monitoring Devices
- b. Ventilation Devices Natural & Mechanical
- c. Ward Lighting
- d. Calling Bell
- e. Fire Alarm System

# 6. Organization

- a. Resident Medical Officer
- b. Nursing Superintendent
- c. Floor Co-coordinator
- d. Nursing In-charge
- e. Nursing Personnel
- f. Nursing Trainee
- g. Ward Boy
- 7. Communication facilities
- 8. Methods of patients" record keeping in wards / technical / medical details
- 9. Admission and Discharge procedures
- 10. Billing system / generation of bills based on bed head ticket entry
- 11. Cleanliness
- 12. Duty arrangement of various medical and Para medical staff

### Third & Fourth Semester

# **Central Sterile Supply Department (CSSD)**

#### Observation of

- 1. Location
- 2. Name and function of equipments
- 3. Items processed by Central Sterile Supply Department
- 4. Sterilization technique
  - a. Heat
  - b. Gas
  - c. Liquid
  - d. Ionizing radiation
  - e. Others
- 5. Work flow
- 6. Clean zone, dirty zone
- 7. Pooling of materials, equipment
- 8. Function of different equipment used for sterilization
- 9. Process of receiving and distribution of materials
- 10. Technique of Gauge folding
- 11. Cleaning, drying and packing of sterilized materials
- 12. Segregation of Dirty zone and clean zone
- 13. Process of receiving and distribution of materials
- 14. Quality control checking of sterilization in collaboration with Micro-biology Lab.
- 15. Organization
  - a. CSSD Supervisor
  - b. Technologist
  - c. Technical Assistant
  - d. Para medical staff
  - e. Attendant
- 16. CSSD Committee

# **Library in Hospital**

Observation the functioning of :-

- 1. Library work flow
- 2. Physical facilities
- 3. Procurement of books and journals as per Good Office Committee (GOC) norms
- 4. Receiving the purchased books / periodicals, audio visual journals etc.

- 5. Preservation of books in the Shelves
- 6. Catalogue preparation
- 7. Process of issue and collection of books
- 8. Updating of catalogue annually
- 9. Library rules and regulations
- 10. Preparation of Membership Card
- 11. Repair of damaged books
- 12. Ascertaining of lost books and journals
- 13. Arrangement of educational programme through Video Satellite system
- 14. Stock verification of Library items periodically

# **Emergency**

## Observation of:-

- 1. Location of Emergency in hospital
- 2. Basic lay out of Emergency
  - a. Receiving patients
  - b. Patient examination zone
  - c. Patient investigation zone
  - d. Procedure room
  - e. Cardio Pulmonary Resuscitation Unit
  - f. Dead patient barrier
  - g. EMO"s Office
  - h. Nursing Station
- 3. Infrastructural facilities: a. Office of EMO; b. Nursing Office
- 4. Equipments
- 5. Legal procedure system
- 6. Emergency Operation Theatre
  - a. Arrangement of instruments and oxygen for minor Operation
  - b. Sterilization and fumigation of O.T. Room
- 7. Admission procedure
- 8. Billing for day care procedure in Emergency Dept.
- 9. Staffing: a. Medical; b. Para Medical
- 10. Security

### **Critical Care Unit**

Observation / involvement in:-

Physical structure and facilities

- 1. Organizational structure
- 2. Bed orientation pattern
- 3. Lighting system
- 4. Monitoring system including connection to centralized monitoring system
  - a. Invasive
  - i. Central Venus Pressure (CVP)
  - ii. Arterial Blood Pressure monitoring
  - iii. Cardiac output monitoring
  - iv. Pulmonary Arterial monitoring
  - b. Non-invasive
  - i. Heart bit rate
  - ii. Blood Pressure
  - iii. Respiratory rate
  - iv. Intake & output monitoring
- 5. Maintenance of sterility and general cleanliness
  - a. Maintenance of sterility of the ward
  - b. Maintenance of sterility of clothing used in CCU
  - c. General sterilizing procedures before examination of the patient
- 6. Administration of CCU
  - a. Qualified doctor having experience in CCU (as per WHO ratio)
  - b. Qualified nurse having experience in CCU (as per WHO ratio)
  - c. Deployment of qualified paramedical staff as per WHO ratio)
- 7. Workflow
  - a. In flow of patient
  - b. Type of patients commonly admitted in CCU
  - c. Pattern of treatment patient receive in CCU
  - d. Type of patient actually needs lifesaving support
  - e. Out flow of patient
  - f. Counselling with outside visitors / patient party
- 8. Equipment maintained in CCU
  - a. Monitor
  - b. Ventilator
  - c. Defibrillator
  - d. ECG and other equipment used in CCU

- 9. Equipment maintained in specialized CCU
  - a. Intra-Aortic Balloon Pump
  - b. Photo Therapy Machine
- 10. Maintenance of uninterrupted gas and power supply system and their utilization
  - a. Continuous wall flow oxygen
  - b. Compressed air
  - c. Suction Apparatus (Vacuum Pump)
  - d. Uninterrupted Power Supply (UPS) line

### **Medical Records**

Observation / involvement in:-

- 1. Assembly of records
- 2. Quantitative and qualitative analysis
- 3. Different classification of records
- 4. Methods of deficiency check
- 5. Completion of incomplete records
- 6. Retrieval of medical records
- 7. Coding system
- 8. Indexing system
- 9. Generation of statistics and analysis
- 10. Reporting to various statutory authorities
- 11. Methods of numbering
  - a. Serial number
  - b. Unit number system
  - c. Serial unit numbering
- 12. Filing System
  - a. Decentralized system
  - b. Centralized system
  - c. Various other methods
- 13. Types of forms

### **OPERATION THEATRE**

Observation / involvement in:-

- 1. Location
- 2. Zoning of Operation Theatre
- 3. Infrastructural facilities
- 4. Centralized and decentralized Operation Theatres
- 5. Equipment requirement
- 6. Procurement and maintenance including annual maintenance contract
- 7. Functions and policies of Operation Theatres

- 8. Manpower requirement
  - a. Medical Superintendent
  - b. In-charge
  - c. Anaesthetist
  - d. Nursing personnel
  - e. Technician
  - f. Ward Boy
- 9. Duties and responsibilities including standard operation procedures
- 10. Safety procedures
- 11. Methods of checking operating rooms for readiness to receive patient
- 12. Periodical sterilization / fumigation
- 13. Sterile supply
- 14. Equipments procurement and maintenance

# **Maintenance Department**

Observation of

- 1. Location of different maintenance department
- 2. Lay out
- 3. Power Generation and supply
- 4. Water Treatment Plant and distribution system
- 5. Demineralization Plant with R.O. facility for Dialysis unit
- 6. Oxygen Plant
- 7. Effluent Treatment Plant
- 8. Air Condition Plant and distribution system
- 9. Maintenance of the medical equipments, calibration
- 10. Maintenance of total hospital building civil, electrical and mechanical
- 11. Organization
  - a. Chief Engineer
  - b. Engineer (Civil, Electrical, Mechanical)
  - c. Supervisor (Electrical, Mechanical, Civil)
  - d. Technician
  - e. Helper
  - f. Office Assistant

# **Bio-Medical Department**

- 1. Bio Medical equipment and their function
- 2. Observation of Bio-Medical Equipments
- 3. Knowing the name of the Bio-Medical Equipments
- 4. Importance and fundamental functions of Bio-Medical Equipments
- 5. Maintenance procedures of Bio-Medical Equipments
- 6. Need assessment and procurement procedure
- 7. Periodical audit of Bio Medical Equipment
- 8. AMC of Bio Medical Equipments

# **Diagnostic Imaging**

Observation / involvement in:

- 1. Various types of machines like;
  - a. CT
  - b. MRI
  - c. PET
  - d. USG with color Doppler
- 2. Advantages / disadvantages of different types of machine
- 3. Basic functioning and maintenance
- 4. Special licensing requirement
- 5. Special structural requirements
- 6. Staffing and manpower planning
- 7. Cost analysis and profitability
- 8. Operation and maintenance

## **Dental Services**

Observation / involvement in:

- 1. Location
- 2. Laboratory
- 3. Recovery Room
- 4. Waiting Room
- 5. Storage
- 6. Administrative Office
- 7. Floors / Walls / Ceiling
- 8. Lighting
- 9. Plumbing
- 10. Ventilation
- 11. Equipment and maintenance of equipments

# **Dialysis Unit**

Observation / involvement in:

- 1. Location
- 2. Infrastructural facility
  - a. Infrastructure for day care dialysis or outpatient dialysis
  - b. Infrastructure for inpatient dialysis
- 3. Various types of dialysis units
- 4. Special arrangement for maintaining sterility
- 5. Ambulatory dialysis system
- 6. Procurement, installation and maintenance of various types of dialysis machines
- 7. Arrangement for stand-by unit

## **Burn Unit**

Observation / involvement in:

- 1. Location
- 2. Infrastructural facility
- 3. Special equipment requirement for Burn Unit
- 4. Attached Laboratory facility
- 5. Communication facility
- 6. Maintenance of Asepsis
- 7. Manpower requirement of
  - a. Medical
  - b. Para Medical
  - c. General Staff
- 8. Mechanism for specialized training needs assessment

# **Blood Bank**

Observation / involvement in:

- 1. Location
- 2. Reception
- 3. Special arrangements for voluntary donors
- 4. Administrative Office
- 5. Record Keeping
- 6. Servicing rooms
- 7. Bleeding Room
- 8. Storage Room

- 9. Storage equipment
- 10. Regulatory requirement
- 11. Blood safety procedures
- 12. Receive and delivery of blood
- 13. Triple screening and check method
- 14. Record keeping
- 15. Medico-legal aspects
- 16. Physical facilities
- 17. Waiting facilities
- 18. Laboratory facilities
- 19. Other facilities
- 20. Issuance of Blood Donor Card
- 21. Safety devices
- 22. Liquid waste management
- 23. Procedure for discarding
- 24. Staffing
  - a. Medical Officer
  - b. Paramedical Staff
  - c. Non-medical Staff

# **Mortuary**

Observation / involvement in:

- 1. Location
- 2. Physical facilities
- 3. Body refrigerator
- 4. Walk in refrigerator
- 5. Capacity decision of Mortuary
- 6. Autopsy facility
- 7. Requirement for autopsy room
- 8. Preservation / identification/levelling of viscera / body fluids and other materials for medico legal purposes
- 9. Embalming procedures
- 10. Methods of long distance transport of dead bodies
- 11. Arrangements for religious rides
  - a. Mortuary traffic control; i) Internal; ii) External
- 13. Identification of bodies using triple check system
- 14. Maintenance of records
- 15. Various legal requirements
- 16. Disposal of unclaimed bodies
- 17. Various religious rites

### Telemedicine

- 1. Infrastructure both end (1) Hospital end (2) Nodal Centre
- 2. Requirement
  - a. Computer Monitors
  - b. Cameras
  - c. Internet connection
- 3. Observation of telemedicine techniques and taking part in the process
- 4. Manpower requirement
  - a. Medical Officer
  - b. Technician

#### **Medical Transcription**

- 1. Observation of techniques and taking part in the process
- 2. Infrastructural requirement
- 3. Trained manpower
- 4. Transmission modes.

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