

# **SAURASHTRA UNIVERSITY**

## **RAJKOT**

(ACCREDITED GRADE "A" BY NAAC)



### **FACULTY OF MANAGEMENT**

Syllabus for

### **POST GRADUATE DIPLOMA IN HOSPITAL MANAGEMENT (PGDHM)**

Choice Based Credit System

**With Effect From: 2016-17**

## **Programme Outcomes:**

PO1: Students gets knowledge with organizational skills and inclination for managerial activities are polished through training courses about hospital management.

## **Programme Specific Outcomes:**

PSO: Student gets ability to manage hospitals with various aspects.



Semester – 1							
Subject Code	Title of Paper	Course Credits	No. of Hrs. Per Week	Weightage For Internal Examination	Weightage For Semester End Examination	Total Marks	Duration of Semester end Exam in Hrs.
Core-1	Bio-Statistics	4	4	30	70	100	2.5
Core-2	Preventive Medicine	4	4	30	70	100	2.5
Core-3	Health Care Administrative	4	4	30	70	100	2.5
Foundation-1	Managing People & Organization	4	4	30	70	100	2.5
Elective-1	Labour Law	2	2	30	70	100	2.5
Elective-2	Computer & Information System	2	2	30	70	100	2.5
<b>Total</b>		20	20	180	420	600	15

Semester – 2							
Subject Code	Title of Paper	Course Credits	No. of Hrs. Per Week	Weightage For Internal Examination	Weightage For Semester end Examination	Total Marks	Duration of Semester end Exam in Hrs.
Core-1	Operations Research	4	4	30	70	100	2.5
Core-2	Finance of Hospital	4	4	30	70	100	2.5
Core-3	Hospital Supportive & Utility Services	4	4	30	70	100	2.5
Foundation-1	Hospital Administration	4	4	30	70	100	2.5
Elective-1	Technical Communication	2	2	30	70	100	2.5
Elective-2	Project & Viva	2	2	30	70	100	2.5
<b>Total</b>		20	20	180	420	600	15



**CHOICE BASED SYLLABUS OF POST GRADUATE DIPLOMA IN  
HOSPITAL MANAGEMENT**

**SEMESTER – I**

1. Biostatistics -	4	
2. Preventive medicine -	4	<b>Core Paper</b>
3. Health care administrative -	4	
4. Managing People and Organization -	4	<b>Foundation-1</b>
5. Labour law -	2	<b>Elective-1</b>
6. Computer and Information system -	<u>2</u>	<b>Elective-2</b>
	<b>20</b>	

**SEMESTER-II**

7. Operations research -	4	
8. Finance of Hospital -	4	<b>Core Paper</b>
9. Hospital supportive and utility services -	4	
10. Hospital administration -	4	<b>Foundation-1</b>
11. Technical communication -	2	<b>Elective-1</b>
12. Project and viva -	<u>2</u>	<b>Elective-2</b>
	<b>20</b>	



## SEMESTER – I

### PAPER I: BIOSTATISTICS

#### Course Outcomes:

- CO1: Recognize the importance of data collection and its role in determining scope of inference.
- CO2: To develop appreciation of statistics and modern medical sciences
- CO3: Collection of biomedical data and its statistical analysis
- CO4: Developing decision models for prediction of medical principles in health field.

#### COURSE CONTENTS:

##### UNIT-1:

1. Methods of Collection of Data: Statistical data, Qualitative and Quantitative data; Presentation of Data: Tabulation, Frequency Distribution: Histogram, Frequency Polygon, Frequency Curve, Line Chart or Graph, Cumulative Frequency graph, Scatter or dot diagram, Bar Diagram: Simple Bar Diagram, Multiple Bar Diagram, Proportional Bar Diagram, Pictogram or Picture Diagram

##### UNIT-2:

1. Measure of Central Tendency: Mean, Mode and Mode, Calculation and interpretation of various measures, Percentile. Measure of Dispersion: Range, mean deviation, Standard deviation. Variance, Kurtosis, Skewness, Coefficient of variation.
2. Correlation and Regression: Calculation of Correlation coefficients from ungrouped data, Calculation of regression coefficients, Regression lines, Curve fitting, Predictions.

##### UNIT-3:

1. Probability: Definition, Examples, Additional law of probability, Multiplication law of probability, Binomial Probability Distribution.
2. Normal Distribution and Normal Curve: Normal curve, Standard Normal variate,

##### UNIT-4:

1. Test of Hypothesis: Concept of a hypothesis, null hypothesis, alternate hypothesis, Tests of significance.
2. Significance of difference in Mean: Standard error of mean, application of standard error of differences. Standard Error of difference between two means of large

samples, paired t tests, Significance difference between two sample means ( Student's t tests), F ratio.

3. Chi Square tests: Test of proportions, Test of association and Test of goodness of fit.

4. Introduction of Decision Analysis: Decision theory and Decision model.

**TEXT BOOK(S):**

1. Dr.B.K.Mahajan, Methods in Biostatistics, Jaypee brothers, New Delhi, 6th ed. 1997

2. Milton, J.Susan, Statistical Methods in the biological and health sciences, MGH, 2nd Ed., 1992.



## PAPER II: PREVENTIVE MEDICINE

### Course Outcomes:

CO1: Preventive Medicine is the medical specialty primarily concerned with the health of populations.

CO2: Describe the measure of mortality and morbidity

CO3: Measure the validity of diagnostic test from data provided

CO4: Describe the various epidemiologic study design and discuss their relative merits

CO5: Develop information system in their work situation which can help them in making management decision.

### COURSE CONTENTS:

#### UNIT-1:

##### Environment and health;

1. **Water** (Safe water, uses, sources, water pollution, water related diseases, purification of water)
  2. **Air** (air composition, air of occupied room, indices of thermal comfort, air pollution, monitoring of air pollution, hazards of air pollution, prevention and control of air pollution, disinfection of air)
  3. **Ventilation** ( standard of ventilation, types of ventilation) Radiation (Sources, man-made, types of radiation, radiation unit, biological effects, radiation protection)
  4. **Solid waste management** ( sources, control of solid waste, control of Non-biodegradable waste)
  5. **Management of waste from hospital** ( classification, sources, composition, categories , waste management plan, Incineration, legal application)
  6. **Hospital acquired infection** ( sources, mode of spread, recipients, preventive measures)
- Disinfection** (Definitions, Agents: natural, physical chemical, recommended procedures)

#### UNIT-2.

##### General Epidemiology

1. **Introduction:** Epidemiology concept, Approach, difference between epidemiologist and clinician,
2. **Measurements in epidemiology:** tools of measurements, Incidence, Prevalence, Measurements of mortality
3. **Epidemiological Study design:** Classification,  
**Descriptive studies:** time- place- person distribution
4. **Analytical study design:** Ecological study design, Cross sectional study design, Case control study, Cohort study
5. **Experimental studies:** Clinical trial, Field trial, community trial

#### UNIT-3:

6. **Surveys:** Objectives, Types, Methods of data collection, Pre requisite of survey,
7. Steps in survey,
8. **Causal association of disease:** Spurious-indirect-direct association
9. **Dynamics of disease transmission:** Sources of reservoir, types of carriers, Direct transmission, indirect transmission,

**10. Disease prevention and control:** Control of reservoir, Interruption of transmission, Protection of susceptible host

**11. Investigation of an epidemic:** Steps of epidemic investigation

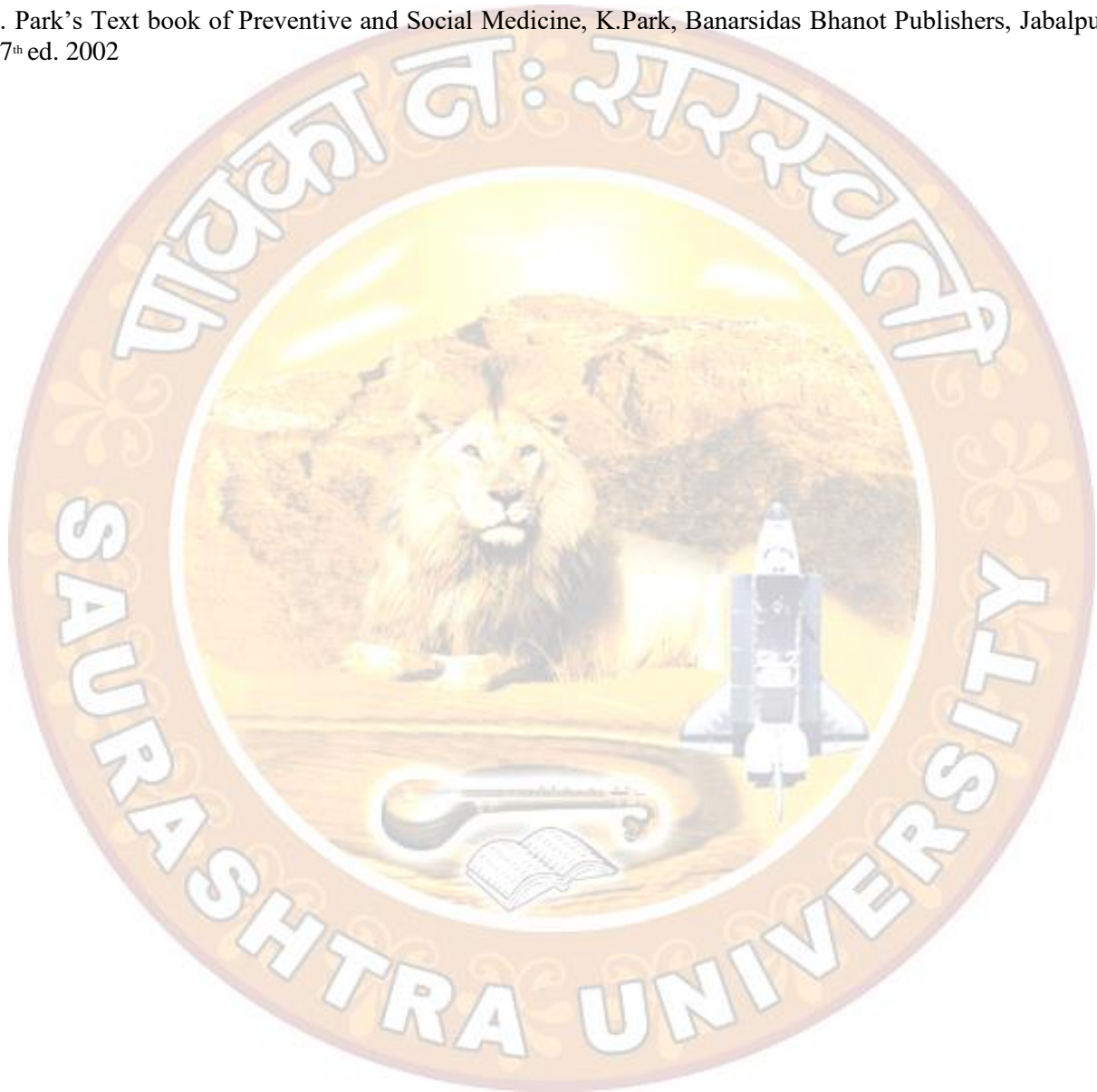
**UNIT-4.**

**Geriatrics**

**1. Geriatrics:** magnitude of problem, Health problems of aged, Preventive measures

**TEXT BOOKS:**

1. Park's Text book of Preventive and Social Medicine, K.Park, Banarsidas Bhanot Publishers, Jabalpur, 17<sup>th</sup> ed. 2002





## **PAPER III: HEALTH CARE ADMINISTRATIVE**

### **Course Outcomes:**

**CO1:** Students will exhibit the knowledge regarding various attributes of leadership and demonstrate the capacity for leadership roles in health care administrative.

**CO2:** Measure the validity of diagnostic test from data provided

**CO3:** Describe the various epidemiologic study design and discuss their relative merits

**CO4:** Develop information system in their work situation which can help them in making management decision.

### **COURSE CONTENTS:**

#### **UNIT-1.**

##### **Occupational health:**

**1. Introduction:** Health of worker,

**Hazards:** occupational hazards, occupational cancer, radiation hazards, Measures for protection of workers

##### **Immunization**

**1. Immunization:** Introduction, National Immunization Schedule and schedule recommended by Indian association of Paediatrics

#### **UNIT-2.**

##### **National health committee, national health policy and programme**

**1. National health committee and national health policy:** Current status and recommendation

##### **National health**

**programme and hospitals:** Various national health programme, role of hospital in various national health programme

#### **UNIT-3.**

##### **Disaster management**

**1. Disaster management** Impact of disaster, types, phases and management, role of hospitals during disaster

#### **UNIT-4.**

##### **Miscellaneous topic**

**1. Patient relationship, doctor-nurse relationship, medical ethics to social ethics, Consumer Protection Act**

**2. Medical audit:** Principles, Methods of medical audit, use

### **TEXT BOOKS:**

1. Park's Text book of Preventive and Social Medicine, K.Park, Banarsidas Bhanot Publishers, Jabalpur, 17th ed. 2002

## **PAPER IV MANAGING PEOPLE AND ORGANISATION**

### **Course Outcomes:**

CO1: Identify the roles which are fulfilled while working as a manager. Identify managerial activities that contribute to managerial effectiveness.

CO2: Articulate the key elements of management, theory and leadership

CO3: Articulate the working concept of an organization and its strategy

CO4: Assess his or her effectiveness as a manager and management decision maker

CO5: Assess the structure of an organization and differentiate its effectiveness.

### **COURSE CONTENTS:**

#### **UNIT-1:**

- a) Concept and Principles of Management as applied to Health service organization
- b) planning activities: forecasting human resource requirement, Interviewing, selection criteria

#### **UNIT-2:**

- c) organizing theory: structure and processes, Organizational behaviour
- d) informal organization
- e) leadership: Daily operations, leadership, training

#### **UNIT-3:**

- f) motivation: Mignagor theory x and y, Maslow's need honorary theory, Aldelfers FRG theory, Herzbergs hygren theory, Vrooni expectancy theory, Abraham equity theory, McClelands need theory,
- g) Logistic management: Leadtime, Buffer stock, two buckets, FIFO, LIFO

#### **UNIT-4:**

- h) Recent Development in Hospital management
- i) Management control: job enrichment, performance appraisal, Burn out
- i) case study

### **TEXT BOOKS:**

1. Weihrich, Weing and Harold Koontz, Management: a global perspective, 10<sup>th</sup> publication, New Delhi: McGraw Hill, 1993.
2. Luthans, Fred, Organational Bhaviour, 6 ed., New Delhi McGraw Hill, Inc., 1992.

## **PAPER V: LABOUR LAW**

### **Course Outcomes:**

CO1: Students will know the development and the judicial setup of Labour Laws.

CO2: Concepts of various laws concerning with Hospital problem

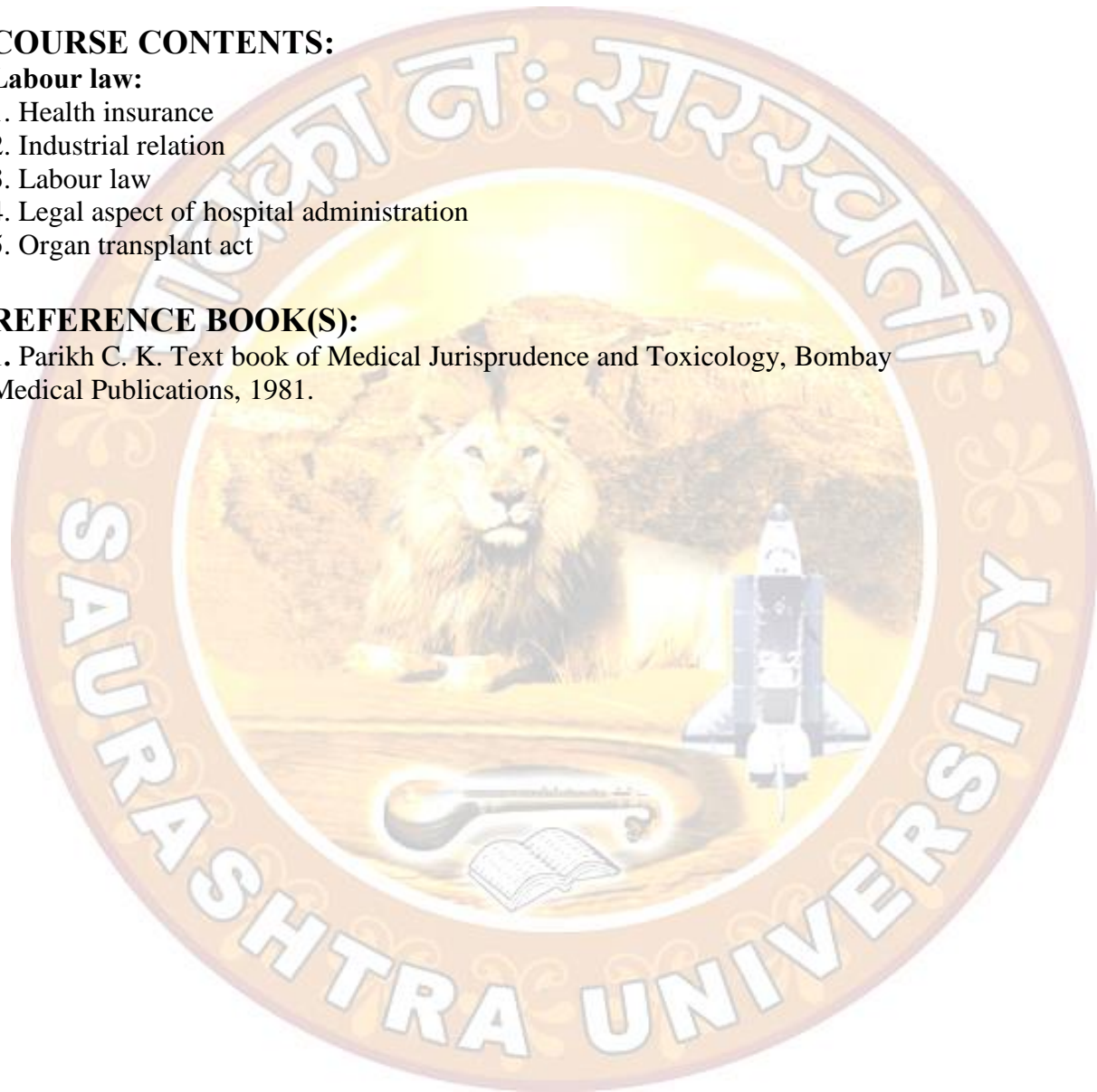
### **COURSE CONTENTS:**

#### **Labour law:**

1. Health insurance
2. Industrial relation
3. Labour law
4. Legal aspect of hospital administration
5. Organ transplant act

### **REFERENCE BOOK(S):**

1. Parikh C. K. Text book of Medical Jurisprudence and Toxicology, Bombay Medical Publications, 1981.



## **PAPER VI: COMPUTER AND INFORMATION SYSTEMS**

### **Course Outcomes:**

CO1: Understand the difference between an operating system and an application program, and what each is used for in a computer.

CO2: The main objective of this course is to strengthen the knowledge of the student regarding the usage of the computer and its application in information systems, especially in hospital management.

### **COURSE CONTENTS:**

#### **UNIT-1:**

1. Organization and function of computers
2. Input and output device: printer, keyboard device, scanners
3. Operating system: Definition, Function, window XP

#### **UNIT-2:**

4. Word-processing
5. MS-EXCEL: concept of Excel, graphics, solving of biostatistical problem
6. Database management: database concept, database system
7. PowerPoint and multimedia; Concept, presentation

#### **UNIT-3:**

8. Some exposure to computer software designed for hospital and health systems management (computer information system)
9. Use of biostatistical data through MS - EXCEL / SSPS

#### **UNIT-4:**

10. Internet: WWW, Website, Brows, search, email, internal security and privacy,

### **TEXT BOOK(S):**

1. Sanders, Donald H., Computer Concepts and Applications, 3<sup>rd</sup> Ed., MGH, New York, 1988.
2. Fundamental of Computers V. Rajaraman Tata McGraw
3. Computer Fundamentals. P. K. Sinha BPB Publications.

## **SEMESTER-II**

### **PAPER VII: OPERATIONS RESEARCH**

#### **Course Outcomes:**

CO1: Identify and develop operational research models from the verbal description of the real system.

CO2: To introduce the concepts, models and techniques related to quantitative aspects of decision making and control.

CO3: To develop skills in utilizing operations research techniques for help in decision making

#### **COURSE CONTENTS:**

##### **UNIT-1:**

- a) basic concept in operation management
- b) analytical and mathematical modelling techniques
- c) linear programming using graphics and simple x method

##### **UNIT-2:**

- d) transportation problems
- e) assignment problems
- f) replacement theory

##### **UNIT-3:**

- g) pert/cpm
- h) simulation

##### **UNIT-4:**

- i) inventory
- j) queuing theory

#### **TEXT BOOKS:**

1. G.V.Shenoy, U.K.Shriwastav, S.C.Sharma, Operations Research for Management, Wiley Eastern Limited, New Delhi, 2<sup>nd</sup> ed. 1991
2. J. K. Sharma, Quantitative Techniques, Macmillan India Ltd., 2001
3. J. K. Sharma, Mathematical Models in Operations Research, Tata McGraw-Hill Publishing Company Limited, 1989

### **PAPER VIII: FINANCE OF HOSPITAL**

#### **Course Outcomes:**

CO1: Student will lead to problems with aging hospital infrastructure and Demonstrate an understanding of healthcare financial management.

**CO2:** The basic concepts of Financial Accounting, Cost Accounting, Management Accounting and Financial Management and enable them to analyze and interpret the financial statements for proper decision making in the realms of Finance and Cost Management and Control. Aim will be to relate these to hospitals and health care system.

## **COURSE CONTENTS:**

### **UNIT-1.**

Accounting As An information System

Concept – Users – Assumption – Accounting Concepts and Conventions – GAAP

### **UNIT-2.**

Recording Business Transactions

Accounts – Classification – The Double Entry System – Recording Transaction – Trial Balance

### **UNIT-3.**

**1.** Measuring Business Income for Service Sector Only

Income Measurement – Adjustment Process – Preparation of Financial Statements with Adjustments

**2.** Financial Statement Analysis

Objectives – Standard of Comparison – Sources of Information – Quality of Earnings – Techniques of Financial Statements Analysis

### **UNIT-4.**

Recent Trends in Hospital Industry ( Conceptual Knowledge Only)

Budgeting – Ratio Analysis – Resource Mobilization – Financial Management of Hospital – Marketing of Hospital –

Audit of Hospitals

## **REFERENCE BOOK(S):**

1. Dhameja, N & K.S.Sastry, Finance and accounting for managerial competitiveness, 1st. ed., Wheeler Publishing, 1993.
2. Hingorani & Ramanathan, Management Accounting, 4th ed., Sultan Chand & Sons, 1990.
3. T.S.Grewal, Introduction to Accountancy, 7th ed., S.Chand & Co.
4. S.P. Lyengar, Cost Accounting – Principles and Practice, 4th ed., S.Chand & Sons, 1987.
5. G. Francis Xavier. Business Accounting and Financial Analysis, Macmillan India limited publication, 2007.
6. Maheshwari S. N. , Financial and Management Accounting, Sultan Chand & Sons, New Delhi, 2002

## **PAPER–IX HOSPITAL SUPPORTIVE AND UTILITY SERVICES**

### **Course Outcomes:**

CO1: Hospital support and utility services in providing quality patient care.

#### **UNIT-1:**

- a) front line services: registration, reception and cash counter
- b) medical toxicology
- c) medical record

#### **UNIT-2:**

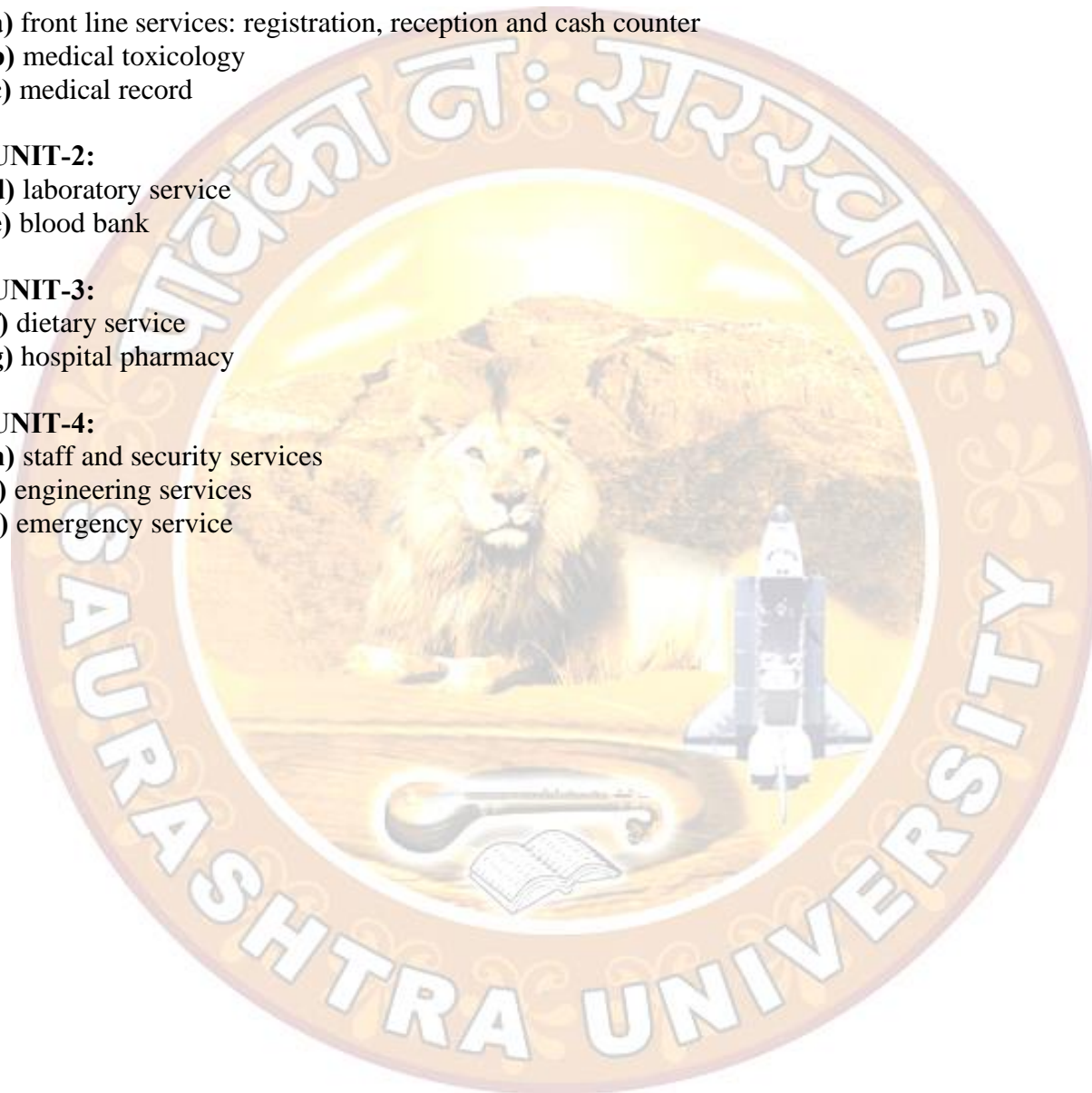
- d) laboratory service
- e) blood bank

#### **UNIT-3:**

- f) dietary service
- g) hospital pharmacy

#### **UNIT-4:**

- h) staff and security services
- i) engineering services
- j) emergency service



## **PAPER X: HOSPITAL ADMINISTRATION**

### **Course Outcomes:**

CO1: Develop awareness of the responsibilities of senior hospital management, including understanding the role and functions of hospitals

CO2: The course deals with concepts, models and techniques to help the hospital administrator with quantitative methods for decision making and control in health management operations.

### **COURSE CONTENTS:**

#### **UNIT-1:**

- a) public relation in hospital
- b) hospital infections
- c) hospital hazard

#### **UNIT-2:**

- d) hospital equipment planning
- e) material management in hospital
- f) personal management in hospital

#### **UNIT-3:**

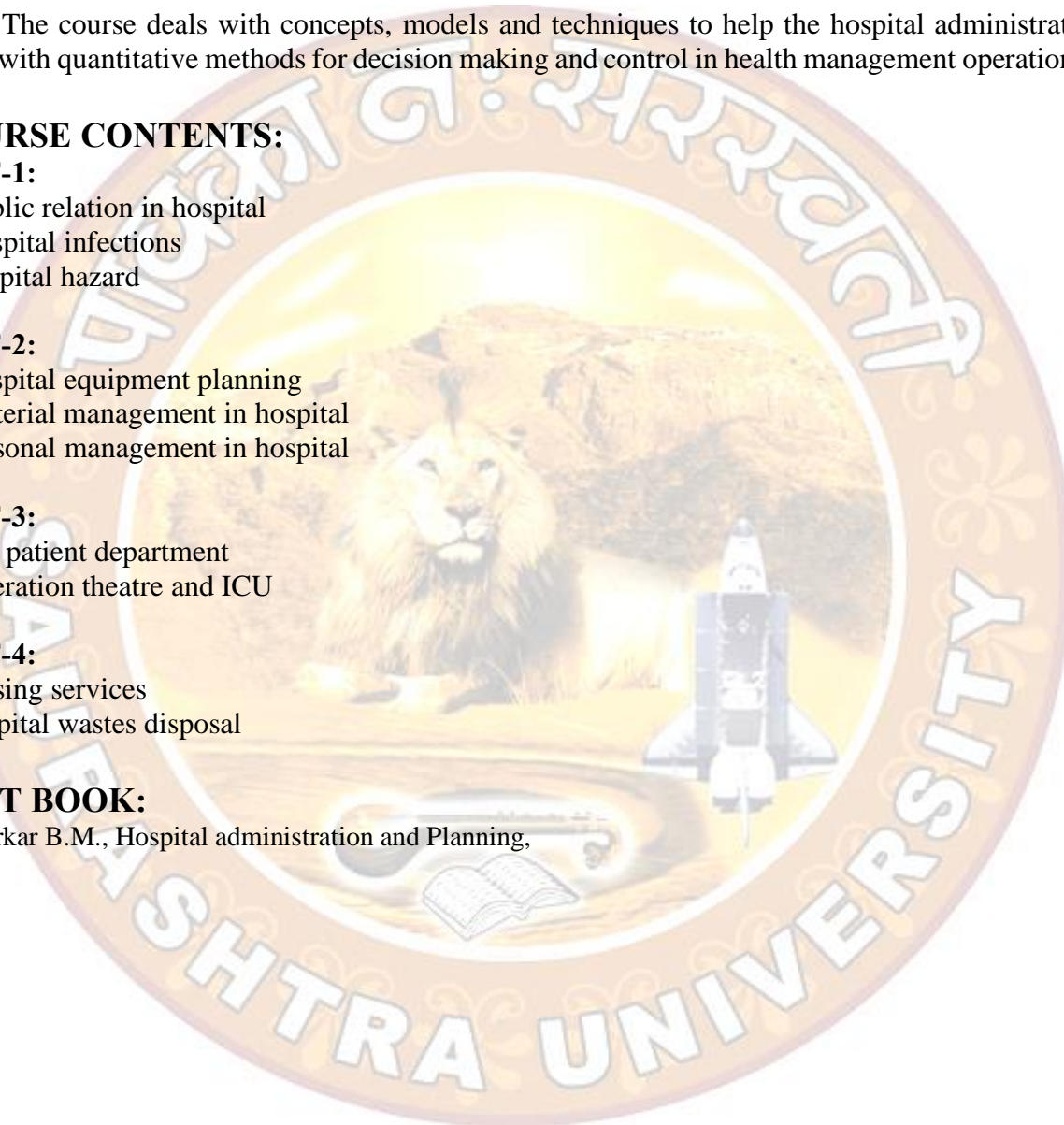
- g) out patient department
- h) operation theatre and ICU

#### **UNIT-4:**

- i) nursing services
- j) hospital wastes disposal

#### **TEXT BOOK:**

Sakharkar B.M., Hospital administration and Planning,





## **PAPER XI: TECHNICAL COMMUNICATION**

### **Course Outcomes:**

CO1: This course develops an understanding of how technical communication and clearly convey specialized information from a technical field to a non-specialized audience.

CO2: The main objective of the course is to inculcate the skills of technical communication relevant to the students' world of the work. This objective is to be realized by developing oral and written communication skills and by providing practice in their use for various communicative tasks performed by them in discharging their duties as professionals.

### **COURSE CONTENTS:**

#### **UNIT-1:**

##### **1. Role and importance of communication**

Definition and meaning of communication: Introduction and definition, communication at individual level,

Communication at organizational level, Importance of communication in modern scenario.

##### **2. Effectiveness in oral and written communication**

Methods of communication: verbal and non-verbal , oral communication, its importance, merits, demerits; Written

communication, its importance, merits, demerits; Barriers to effective communication , measures to overcome the

barriers , measures to overcome the barriers; Channels of communication, formal and informal; Dimensions of

communication, upward, downward, horizontal and diagonal

#### **UNIT-2:**

##### **3. Report and proposal writing**

**Report writing:** basic understanding of creating a report , types of reports, informative, analytical, research,

building a critical skill in effective report writing

**Proposal writing:** basic understanding of proposal writing, types of proposal, internal, external, solicited,

unsolicited, building a critical skill in making an effective proposal

(note: topics pertaining to the theory under this category are for the better understanding of the topic, no theoretical questions would be asked in the examination.)

#### **UNIT-3:**

##### **4. Business communication (written form)**

Basics of business letters: Introduction, structure of a business letter, building a critical skill of writing an effective

business letter, different kinds of business letters – inquiry or request letter and its reply\*; inviting tenders\*;

quotations, order letters\*; sales letter, circular letter; claim and complaint\*; collection letter; correspondence with

insurance company\*; correspondence with bank\*

(note: (i). topics pertaining to the theory under this category are for the better understanding of the topic, no

theoretical questions would be asked in the examination. (ii). candidates would be asked to draft letters from the

categories marked as \* only)

#### **5. meetings and internal communication in an organization**

Introduction: agenda\*, meeting procedures and documentation, notice of a meeting, minutes of a meeting\*, office

circular, memorandum (memo) – format of a memo – drafting a memo\*

(note: (i). topics pertaining to the theory under this category are for the better understanding of the topic, no

theoretical questions would be asked in the examination. (ii). candidates would be asked to prepare drafts of the

categories marked as \* only)

#### **UNIT-4:**

#### **6. Interpersonal communication**

Group communication: group personality, brainstorming, listening\*, oral communication related to meetings,

seminar, conference, group discussion\*

(note: only those topics marked as \* are to be considered for detailed study)

#### **7. modern aids of communication**

creating professional image and skills by using modern tools of communication: fax, format, advantages,

disadvantages; e-mail: format, advantages, disadvantages, video conferencing, web writing

#### **TEXT BOOK:**

1. Developing communicative skills, by mohan k. and m. banerjee, macmillan 1990.

#### **REFERENCE BOOKS:**

1. Business communication: building critical skills, by kitty o locker and stephan kyo kaczmarek, tata mcgrow- hill publication 3<sup>rd</sup> edition.

2. Advanced business communication by penrose, raspberry and mayers, thomson-south western, 4<sup>th</sup> edition.

3. A guide to business correspondence and communication skills by a. n. kapoor, s. chand and company, 2004.

4. Business communication and organization and management by rohini aggaarawal, taxmann's.

#### **EXTRA ACTIVITIES:**

1. Oral Communication related to Meetings, Seminars, Conferences, Group Discussions, etc.
2. Use of Modern Communication Aids.

### **TEXT BOOK(S):**

Mohan, K. and M. Banerji, Developing Communication Skills, Macmillan, 1990

## **PAPER–XII PROJECTS AND VIVA**

### **Course Outcomes:**

- CO1: The main purpose of project is to inform action, to prove a theory, and contribute to developing knowledge in a field work or study
- CO2: Every students has to undergo for a survey and to collect either primary or secondary data for any hospital directed by department and then to analyse the data after which the report will be submitted in hide binding. A viva-voce will also take place which will be as a part of project

## **PASSING SYSTEMS FOR POST GRADUATE DIPLOMA IN HOSPITAL MANAGEMENT**

There are Five papers in each of the semester. Each paper consists of 100 marks which has been further splitted into two parts ( i ) Written examination consists of 70% and ( ii) internal examination(written/group discussion and personal interview of 30%.)

**R PGDHM 1:** The Candidate not passing in any number of papers in first semester will be allowed to continue their study in second semester and will be given exemption in the paper in which he secured passing marks.

**R PGDHM 2:** A candidate must obtain at least 40% marks in each paper to pass the Examination

**R PGDHM 3:** The Candidate will be awarded class after passing all the papers of both the semesters and it will be on the basis of aggregate marks if he/she is eligible to be declared pass.

**R PGDHM 4:** Award of Class:

Successful Candidates at the end of Semester – 2 will be classified on the basis of their combined marks obtained in both the Semester – I and II as follows:

### **SN Marks obtained Class**

- 1 70% or more Distinction
- 2 60% or more but less than 70% First Class
- 3 50% or more but less than 60% Second Class
- 4 40% or more but less than 50% Pass Class