



**UNIVERSITY OF CALICUT**

**Abstract**

Faculty of Commerce and Management Studies - Modified Regulation and Syllabi of Master of Business Administration Programme in Health Care Management (MBA - HCM) under CUCSS Mode with effect from 2024 -25 admissions - Approved - Implemented- Orders Issued .

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**G & A - IV - E**

U.O.No. 19278/2024/Admn

Dated, Calicut University.P.O, 30.12.2024

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*Read:-*1.U.O.No.9746/2024/Admn dated 21.06.2024

2.U.O.Note No:140159/EPR- IX - Asst-III/2024/PB dtd: 04.10.2024

3.U.O.Note No.91238/EX-IV-ASST-2/2024/PB dtd:17.11.2024

4 Email received from the Dean ,Faculty of Commerce and Management Studies on 19.12.2024

**ORDER**

1. Vide paper read (1) above, the Regulation and Syllabi of Master of Business Administration Programme in Health Care Management (MBA - HCM) under Calicut University Credit Semester System (CUCSS) with effect from 2024 -25 admissions was implemented.
2. Vide paper read (2&3), Pareeksha Bhavan pointed out certain discrepancies in the Regulation and Syllabi of MBA Programme in Health Care Management (MBA - HCM) under CUCSS Mode with effect from 2024 -25 admissions.
3. Considering the above matter, the Chairman, Board of Studies in Management Studies (PG) also holds the position of Dean, Faculty of Commerce and Management Studies forwarded the Modified Regulation and Syllabi of MBA Programme in Health Care Management (MBA - HCM) under CUCSS Mode with effect from 2024 -25 admissions, vide paper read (4).
4. Considering the urgency, the Vice Chancellor, exercising the powers as per clause 10 (13) of Calicut University Act 1975, accorded sanction to implement the Modified Regulation and Syllabi of Master of Business Administration (MBA) Programme in Health Care Management (MBA - HCM) under CUCSS Mode with effect from 2024 -25 admissions .
5. Modified Regulation and Syllabi of Master of Business Administration (MBA) Programme in Health Care Management (MBA - HCM) under CUCSS Mode with effect from 2024 -25 admissions, is thus implemented .
6. Orders are issued accordingly. (Modified Regulations and Syllabi appended)

Ajayakumar T.K

Assistant Registrar

To

The Principals/Co-ordinators of the Colleges/Centers concerned.

Copy to: PS to VC/PA to PVC/PA to Registrar/PA to CE/EX & EG Sns/Digital wing/SF/DF/FC

Forwarded / By Order

Section Officer

**University of Calicut**  
**Regulations of Master of Business Administration - HEALTHCARE MANAGEMENT (MBA HCM) Programme under CUCSS Mode**  
**Implemented With Effect from 2024-25 Admissions in Affiliated MBA Colleges and MBA Self-Financing Centres**

### **1.0 Introduction**

The Master of Business Administration (MBA) program at the University of Calicut aspires to cultivate individuals into visionary leaders and astute entrepreneurs, poised to confront the dynamic challenges inherent in the ever-evolving global business environment. This overarching goal is pursued through a multifaceted approach, employing various strategic initiatives and a pedagogical framework that places significant emphasis on participatory learning. The redesigned MBA curriculum represents a pivotal advancement, building upon the foundational principles of Outcome Based Education (OBE) inaugurated at the University of Calicut in the year 2023. This curriculum is meticulously structured to propel the MBA program to a heightened echelon of educational efficacy within the framework of Outcome- Based Education, synergistically aligned with the Credit and Semester System (CSS) regulations of 2020. The integration of OBE within the curriculum substantiates a commitment to clearly delineated learning outcomes, ensuring a comprehensive and structured educational experience.

### **2.0 Title of the Programme**

This degree shall be called **MASTER OF BUSINESS ADMINISTRATION in Healthcare Management (MBA HCM)**. The Master of Business Administration (MBA-HCM) is an exclusive Management Programme designed to develop human resource to cater the unique needs of managing health care sector.

### **3.0 Outcome Based Education**

Outcome-Based Education (OBE) is an educational philosophy that prioritizes defining specific, measurable outcomes or learning objectives for students. It shifts the focus from what is taught to what students should be able to demonstrate by the end of a course or a program. The benefits of OBE are manifold. It brings clarity to educational goals, providing a transparent framework for both educators and students. This clarity enhances student understanding of expectations and

facilitates more effective learning.

OBE fosters a student-centered environment, encouraging active engagement, critical thinking, and practical application of knowledge. The emphasis on measurable outcomes allows for objective assessment and continuous improvement in teaching methods and curriculum design. Furthermore, OBE aligns education with industry needs, ensuring that graduates possess the skills and competencies relevant to the workforce. In essence, Outcome-Based Education not only enhances the quality of education but also equips students with the tools necessary for success in a dynamic and evolving world.

#### **4.0 Programme Outcomes (POs)**

Programme Outcomes are the abilities the students acquire at the end of the programme. Programme Outcomes are formulated on the basis of the outcomes which are laid by National Board of Accreditation (NBA).

The following section states the Programme Outcomes of the MBA provided by the National Board of Accreditation.

PO1: Apply the knowledge of management theories and practices to solve business problems.

PO 2: Foster analytical and critical thinking abilities for data – based decision making.

PO 3: Develop value-based leadership ability.

PO 4: Understand, analyse, and communicate global, economic, financial, legal, and ethical aspects of the business.

PO 5: Lead themselves and others in the achievement of organisational goals, contributing effectively to a team environment.

#### **5.0 Eligibility for Admission**

Any student who has passed any degree of the University of Calicut (including degree programmes of SDE/ Open degree programme of SDE, University of Calicut) or that of any other University or institute or institution recognized by the UGC or AICTE. Programmes of other Universities or institutions shall be in 10+ 2+ 3 pattern (or 10+ 2+ 4) under regular stream. In all the cases, the student should have passed the bachelor degree examination with not less than **50 % marks** in aggregate including the marks of languages if any (without approximation, that is, 49.9999 % is not eligible since it is less than 50%), is eligible for admission. However, SC/ST, OBC, and other eligible communities shall be given relaxation as per University rules.

## **6.0 Admission Procedure**

### **6.1 For University Department or its Full time and Part time centres**

The admission to the programme shall be made based on the score in the entrance test called CMAT conducted by the All India Council for Technical Education (AICTE) or KMAT conducted by the Admission Supervisory Committee, Govt of Kerala or CAT conducted by a consortium of IIMs and the marks of the Group Discussion and Personal Interview obtained by the candidates in the Plus Two examination put together in the following proportion:

The rank score shall be arrived at as follows:

|                            |            |
|----------------------------|------------|
| Entrance test score out of | <b>120</b> |
| Plus Two marks out of      | <b>30</b>  |
| Group discussion out of    | <b>25</b>  |
| Personal Interview out of  | <b>25</b>  |
| Total out of               | <b>200</b> |

The minimum required test score to be eligible for admission to MBA programme of this University is 10 % of the maximum of the respective entrance examinations for all candidates and 7.5% for SC/ST candidates.

The weightage for Plus Two / PDC shall be based on total marks obtained by the students in all parts, (that is, languages and subjects or Part I, Part II and Part III). Up to 50% aggregate marks obtained in the plus two examination: No Weightage. Every one per cent of over and above 50 percent, one mark will be given subject to a maximum of 30 marks for Higher Secondary or equivalent thereof. For calculating this academic weightage, marks obtained in the Plus two/ Higher Secondary / PDC up to 0.49% will be rounded to lower full digit marks and 0.5 and above will be rounded to next full digit marks.

**6.2** A rank list shall be prepared by the University based on the final rank score computed as above and a counseling session shall be conducted for admission to the MBA Programme. While preparing the rank list, if there is same index mark for more than one candidate, they will be

ranked on the basis of the score of the test. Even after this, there is a tie they will be ranked on the basis of actual marks obtained for Plus Two examination. If tie exists even after with this, the date of birth is to be considered and the elder person is to be given preference in the admission. The candidates admitted to the MBA programme must produce the qualifying degree mark list/ provisional certificate/ confidential mark list, latest at the last date of closing MBA Admission by the University. If he/she fails to produce the same, his or her admission will be cancelled on the next working day. The University will not be liable for the loss caused to the student. Reservation of seats shall be followed strictly for admission both in the Department and also at its centres as per the Kerala Government Rules applicable for the professional colleges.

### **6.3 For Affiliated Management Institutes**

For admission to MBA Programme in private management institutes affiliated to Calicut University Clause 6 of the regulation is applicable. Candidates while appearing for the selection must produce valid test score before the selection committee both for merit seats and management quota seats. During the month of **March/April** the University shall invite applications for admission to MBA programme under merit seats. Before the last date of receipt of applications for admissions, the candidate shall have obtained his/her Test Score and the score card shall be submitted along with the application on or before the last date of receipt of filled up application form each year. Based on the Test Score, the candidate shall be shortlisted for Group Discussion and Personal Interview at least thrice the number of seats or the actual number of applicants whichever is lesser shall be the number of candidates invited for Group Discussion and Personal Interview.

**6.4** Out of the total seats, 50% shall be Merit Quota (Government Quota) and 50% shall be Management Quota. University shall conduct the Group Discussion and Personal Interview for merit quota seats in self-financing institutes and a common rank list shall be prepared, for all the self-financing institutes. Options will be collected by the university from the candidates during the counseling and will make allotment of candidates to different institutes on the basis of merit and according to the choice of the candidates, keeping all community reservation rules applicable as per Government of Kerala rules. Based on this, allotment letter will be given by the University to the candidates and the college shall give admission to the candidates in the merit quota seats based on the allotment letter.

**6.5** If sufficient candidates are not joining in the merit quota seats as per the University allotment letter, the college/institute shall report the matter to the University and with the written permission of the University, the college/institute may fill the seats from the rank list prepared by the University based on the Entrance and GD/PI conducted by the University. The management quota seats shall be filled up after preparing a rank list based on the CMAT score. The private management institutes shall inform the Registrar, University of Calicut and also the Dean, Faculty of Commerce and Management Studies about the entrance test that the institute shall use for ranking candidates for Management Quota seats.

**6.6** Admission shall be strictly based on the rank list or lists that the institutes prepare and publish based on the above. The institute shall send one copy each of such rank list or lists of the candidates admitted to the Registrar, University and the Dean, Faculty of Commerce and Management Studies within two weeks of its closing admission each year.

**6.7** The University may prepare a calendar of MBA events for admission, class commencement and ending, end-semester university exam, etc. The date of publication of notification inviting applications, last date of receipt of filled up applications, date of admission and commencement of classes shall be based on the calendar of events for MBA issued by the University.

**6.8** Those candidates seeking admission under Merit and Management Quota through tests mentioned in clause 6.1 willing to obtain combined score card from the University shall produce the original test score card to the University.

## **7.0 Medium of Instruction and Examination**

The medium of instruction and examination shall be English.

## **8.0 Schedule and Hours of Lecture**

### **8.1 Duration of the programme**

The programme shall have four semesters. Each semester shall consist of 16 weeks. Instruction and University examinations in each course in a semester shall be completed within 90 days in a semester.

| <b>Semester</b>          | <b>Beginning Month*</b>             | <b>Closing month*</b>               | <b>Duration</b> |
|--------------------------|-------------------------------------|-------------------------------------|-----------------|
| 1 <sup>st</sup> Semester | 1 <sup>st</sup> August every year   | 31 <sup>st</sup> January every year | 6 months        |
| 2 <sup>nd</sup> Semester | 1 <sup>st</sup> February every year | 31 <sup>st</sup> July every year    | 6 months        |
| 3 <sup>rd</sup> Semester | 1 <sup>st</sup> August every year   | 31 <sup>st</sup> January every year | 6 months        |
| 4 <sup>th</sup> Semester | 1 <sup>st</sup> February every year | 31 <sup>st</sup> July every year    | 6 months        |

\* However, the University has the right to change these schedules according to circumstances.

## **8.2 Lecture Hours**

Each four-credit course shall have four hours and each three-credit course shall have three hours of lecture classes per week. Each 4-credit course shall have a minimum of 60 hours of lecture and each 3-credit course shall have a minimum of 45 hours of lecture in a semester.

## **9.0 Attendance**

A student shall attend at least a minimum of 75 % of the number of classes actually held for each of the courses in a semester to be eligible for appearing for university examination of that semester. If the student has shortage of attendance in a semester, he or she shall not be allowed to appear for examination of that semester. However, the University may condone shortage up to 10 % of the maximum number of contact hours per semester. If the candidate has shortage more than this limit, he/she has to compensate the shortage of attendance of that semester along with the next batch and appear for the university examination of that semester.

**Condonation will be allowed once during the Course of Study.**

## **10.0 Internal Assessment**

All courses shall have internal assessment.

### **10.1 Internal assessment components**

The internal assessment will be based on the following components. The total marks to be obtained from the internal assessment is 40 marks. Each faculty shall have the freedom to decide the appropriate percentage of marks for individual components except for tests, which shall be a minimum of 50% of the total internal assessment. But the following components may be followed:

|  |                 |
|--|-----------------|
| Periodic tests (Marks of best 2 out of a minimum of 3 tests) | 20 marks (50%)  |
| Mini Project (One)   | 8 marks (20%)   |
| Seminar  | 4 marks (10%)   |
| Assignment   | 4 marks (10%)   |
| Classroom participation and attendance                       | 4 marks (10%)   |
| Total Marks  | 40 marks (100%) |

**i.** A student should have obtained a minimum of D grade (ie; 20 marks out of the total 40 marks / 50 % of the maximum marks) in internal assessment in each course to be passed successfully in that course.

**ii.** In case a student fails to get D grade in any course, he or she shall take retest(s)/ submit assignments to the concerned faculty to get the required minimum in that course. Internal assessment has to be completed before the university examination for each semester.

**iii.** If the student fails in getting the required minimum marks in internal assessment despite taking retests or re-submission etc., he or she shall not be allowed to write the University examination in that semester for that particular course.

**iv.** Such students shall repeat the course along with the successive batch of MBA students to get pass marks in internal assessment and then appear for the University examination in such course.

## **11.0 Transparency about Internal Assessment**

**11.1** Each faculty shall maintain record of performance and attendance of each student in his or her class course-wise.

**11.2** Each faculty shall submit the internal assessment marks of the students to the Head of the department or institution on the conclusion of lecture class in each semester.



**11.3** Such internal assessment mark lists shall show all the components separately and the total of internal assessment marks awarded to each student.

**Format of Internal Assessment Mark list**

| Sl. No. | Name | 1 Test | 2 Test | 3 Test | 2 tests of Best Sum | Mini Project | Seminar paper & presentation | Attendance | Assignment | Total (40 marks) |
|---------|------|--------|--------|--------|---------------------|--------------|------------------------------|------------|------------|------------------|
|         |      |        |        |        |                     |              |                              |            |            |                  |
|         |      |        |        |        |                     |              |                              |            |            |                  |
|         |      |        |        |        |                     |              |                              |            |            |                  |

**11.4** The Department or Centre or Institute shall publish the list of internal assessment marks of all the students within a week of conclusion of the lecture classes in each semester before sending it to the Controller of Examinations.

**11.5** The internal marks of the student shall be communicated to Controller of Examinations along with Attendance and Progress Certificate (APC) within two weeks from the last day of class in each semester.

**11.6** The faculty shall make available details of the internal assessment marks, with explanations wherever required, to the Head of the Department or Institution in case of grievance regarding internal assessment.

**12.0 Procedure for grievance handling of internal assessment**

**12.1** If the students have any grievance against any member of faculty, such grievance shall be dealt with at three levels for a solution. First, the concerned student may present the grievance and discuss it with the concerned faculty.

**12.2** If the grievance is not solved at the faculty level, the student shall submit a written complaint with all the relevant details to the Head of the Department, centre, or institute.

**12.3** The complaint shall be dealt with by a Committee of Teachers with the Head of the institute,

one senior teacher and the teacher whose assessment is a matter of dissatisfaction for the student or students.

**12.4** If it is not solved at the Department or centre or institute level the head of the institution shall forward the written complaint of the student along with the reply of the concerned faculty member to the Controller of Examinations, University of Calicut.

**12.5** The student and the faculty member may be invited to present the facts of the dispute in writing before a Committee consisting of the Controller of Examinations, Head, Department of Commerce and Management Studies, University of Calicut and the Dean, Faculty of Commerce and Management Studies of the University. This Committee may take a final decision based on the facts presented by the student(s) and the concerned teacher and the answers they get from them.

### **13 External Examination**

**13.1** The University shall conduct semester-end examinations, carrying 60 marks for all four credits and three credits courses.

**13.2 The duration of the examination shall be three hours for all the four credits and three credits courses.**

**13.3** A student shall register for all the courses in a semester to appear for examination in the respective semester for the first time. The part appearance shall not be allowed for the first appearance.

#### **13.4 Pattern of the University Question Paper**

- i. The examination for the University will consist of a question paper structured to assess students across various cognitive levels as per the revised Bloom's Taxonomy. The paper will have four sections labeled A, B, C, and D, each designed to evaluate different levels of understanding and application.
- ii. The maximum mark for a 3 credit paper / 4 credit paper is 60 and the duration is 3 hours.
- iii. The question paper for the University examination will have 4 sections, sections A, B, C and D and the questions will be set as per the revised Bloom's Taxonomy knowledge levels.

- iv. Section A will comprise five questions, each worth 2 marks, at Bloom's Taxonomy levels 1 and 2. Students must answer all five questions in this section, as they are compulsory. (2\*5 = 10 marks)
- v. Section B will contain six questions, each worth 4 marks, at Bloom's Taxonomy levels 2 and 3. Additionally, there will be an essential question from a crucial module at level 3. Out of the six questions, students must answer four, as they are compulsory. (4 x 4 = 16 marks).
- vi. Section C will include five questions, each worth 8 marks, at Bloom's Taxonomy level 4 and 5. From these questions, students are required to answer three, as they are compulsory. (3 x 8 = 24 marks).
- vii. Section D will present a case study or problem question, valued at 10 marks, and will require application at Bloom's Taxonomy levels 5 or 6. Subdivisions within the question are permissible. For instance, there could be two sub-questions worth 5 marks each or five sub-questions worth 2 marks each. For example (2 sub-questions x 5 marks = 10 Marks) or (5 sub-questions x 2 marks = 10 Marks).
- viii. The question paper should incorporate approximately 30% revised Bloom's taxonomy Level 1 & 2 questions, 50% revised Bloom's taxonomy Level 3 & 4 questions, and 20% questions at revised Bloom's taxonomy Level 5 or 6.

## **14.0 Major Project**

**14.1** The students shall do a major project during their final semester of MBA under a faculty guide, preferably in their area of specialization.

**14.2** The faculty guide must have either (a) M. Phil or Ph.D. in Management or Commerce or Economics or (b) two years' MBA teaching experience.

**14.3** The duration of fieldwork for a major project is eight weeks.

**14.4** This project work is to be done individually by the students.

**14.5** The student shall prepare and submit a project report, printed and bound (preferably spiral bound) to the Head of the Department, or Centre or Institute before the last working day of

the final semester.

**14.6** The head of the institute shall send the projects of all the students together to the Controller of Examinations well in time so that they are received in the Pareeksha Bhavan within two weeks from the last date for project submission to the institute.

**14.7** Projects received late shall be forwarded to the Controller of Examinations along with a request for late submission supported by necessary fee for late submission as fixed by the University.

**14.8** However, such late submission shall be done within one month of the last date for final semester project submission.

**14.9** A certificate showing the duration of the project work shall be obtained from the organization for which the project work was done and it shall be included in the project report.

## **15.0 Structure of the Report (Common For Minor & Major Projects)**

Title page

Certificate of the Head of the Dept. /Institution Certificate from faculty guide Certificate, in original, from the organization (for having done the project work)Declaration Acknowledgement Contents

Chapter I: Introduction (Organization profile, Research problem, objectives of the study, Research methodology etc.)

Chapter II: Review of literature / Theoretical profile

Chapters III: Industry and Company Profile

Chapter IV: Data Analysis and Findings

Chapter V: Summary, Findings, and Recommendations.

Appendix (Questionnaire, specimen copies of forms, other exhibits,etc.)Bibliography (books, journal articles etc. used for the project work).

## **16.0 Evaluation of Minor Project Report**

**16.1** The comprehensive evaluation of the Minor Project will encompass a total of 100 marks, with the assessment conducted through a dual-stage process comprising both internal and external evaluations. Forty percent of the total marks (40 marks) shall be awarded through the internal assessment by the institution and sixty percent of the total marks (60 marks) shall be awarded through external assessment.

**16.2** The total internal marks of 40 shall be split as follows: 20 marks shall be awarded by the faculty guide and 20 marks shall be awarded through an internal viva-voce (two member panel) after the submission of the draft report. The submission of internal assessment marks by colleges to the university shall adhere to a transparent and objective process, with the assessment being conducted on a total of 40 marks.

**16.3** External evaluation by the Third semester Board of Examiners appointed by the University for a maximum of 60 marks for the Minor Project in the Third semester shall be split as follows: 45 marks for the project report and 15 marks for the vivavoce.

**16.4** Sum of the marks awarded to each student in the internal evaluation out of 40marks and the external evaluation out of 60 marks together shall be awarded to the student for the Minor project.

While evaluating the project report 45 marks may be distributed in the following order.

| No | Compulsory Criteria                   | Minor Project (Marks) |
|----|---------------------------------------|-----------------------|
| A  | Problem Formulation                   | 8                     |
| B  | Methodology Adopted                   | 7                     |
| C  | Analysis & Interpretation of the data | 15                    |
| D  | Clarity of Findings                   | 8                     |
| E  | Report Writing                        | 7                     |

|  |       |    |
|--|-------|----|
|  | Total | 45 |
|--|-------|----|

**16.5** Head of the Department or Centre or institute shall send all the projects of Third semester students to the controller of Examinations after internal evaluation.

### **17.0 Viva Voce Examination for Minor Project**

**17.1** At the end of the Third semester, each student shall attend an external viva voce examination. Viva Voce examination shall be for 15 marks.

**17.2** The Viva Board shall have at least two members. The University shall appoint the examiners.

**17.3** The viva voce will be about the project reports.

**17.4** The student should get a D grade (7.5 marks / 50% of the total) for a pass in viva voce. The total marks of 15 for viva voce examination shall be split in the following order:

- a. Clarity of explanation – 5 marks
- b. Depth of knowledge - 5 marks
- c. Communication skills and presentation skills – 5 marks

### **18.0 Minimum credits for Minor Project Report**

**18.1** The student should get a minimum of 50% marks / D grade (separately in internals and externals) for project reports for a pass in Minor projects.

**18.2** If the student fails to get a D grade for the project report, he or she shall resubmit the project report after modifying it based on the recommendations of the examiners. This can be done immediately after the publication of the results.

### **19.0 Evaluation of Major Project Report**

**19.1** The comprehensive evaluation of the major project will encompass a total of 200 marks,

with the assessment conducted through a dual-stage process comprising both internal and external evaluations. Forty percent of the total marks (80 marks) shall be awarded through the internal assessment by the institution and sixty percent of the total marks (120 marks) shall be awarded through external assessment.

**19.2** The total internal marks of 80 shall be split as follows: 40 marks shall be awarded by the faculty guide and 40 marks shall be awarded through an internal viva-voce (two member panel) after the submission of the draft report. The submission of internal assessment marks by colleges to the university shall adhere to a transparent and objective process, with the assessment being conducted on a total of 80 marks.

**19.3** External evaluation by the final semester Board of Examiners appointed by the University for a maximum of 120 marks for the major project in the final semester shall be split as follows: 90 marks for the project report and 30 marks for the vivavoce.

**19.4** Sum of the marks awarded to each student in the internal evaluation out of 80 marks and the external evaluation out of 120 marks together shall be awarded to the student for the major project.

While evaluating the project report 90 marks may be distributed in the following order.

| No | Compulsory Criteria                   | Major Project (Marks) |
|----|---------------------------------------|-----------------------|
| A  | Problem Formulation                   | 15                    |
| B  | Methodology Adopted                   | 15                    |
| C  | Analysis & Interpretation of the data | 30                    |
| D  | Clarity of Findings                   | 15                    |
| E  | Report Writing                        | 15                    |
|    | Total                                 | 90                    |

**19.5** Head of the Department or Centre or institute shall send all the projects of final semester students to the controller of Examinations after internal evaluation.

## **20.0 Viva Voce Examination for Major Project**

**20.1** At the end of the fourth semester, each student shall attend an external viva voce examination. Viva Voce examination shall be for 30 marks.

**20.2** The Viva Board shall have at least two members. The University shall appoint the examiners.

**20.3** The viva voce will be about the project reports.

**20.4** The student should get a D grade (15 marks / 50% of the total) for a pass in viva voce. The total marks of 30 for viva voce examination shall be split in the following order:

- a. Clarity of explanation – 10 marks
- b. Depth of knowledge - 10 marks
- c. Communication skills and presentation skills – 10 marks

## **21.0 Minimum credits for Project Report**

**21.1** The student should get a minimum of 50% marks / D grade (separately in internals and externals) for project reports for a pass in major projects.

**21.2** If the student fails to get a D grade for the project report, he or she shall resubmit the project report after modifying it based on the recommendations of the examiners. This can be done immediately after the publication of the results.

## **22.0 Scheme of Instruction and Examination**



### 22. 1 Semester One

| Exam Slot | Course Code                               | Course Title  | Internal Credit | External Credit | Total Credit | Type              |
|-----------|---|---|-----------------|-----------------|--------------|-------------------|
| A         | BUS HCM S1 01                             | Business and Healthcare Communication                       | 1.2             | 1.8             | 3            | Core              |
| B         | BUS HCM S1 02                             | Principles of Hospital Administration & Healthcare Ethics   | 1.6             | 2.4             | 4            | Core              |
| C         | BUS HCM S1 03                             | Business and Medical Laws                                   | 1.2             | 1.8             | 3            | Core              |
| D         | BUS HCM S1 04                             | Healthcare Environment                                      | 1.2             | 1.8             | 3            | Core              |
| E         | BUS HCM S1 05                             | Fundamentals of Medical Science                             | 1.6             | 2.4             | 4            | Core              |
| F         | BUS HCM S1 06                             | Quantitative Techniques for Healthcare Management Decisions | 1.6             | 2.4             | 4            | Core              |
| G         | BUS HCM S1 07                             | Accounting for Healthcare Managers                          | 1.6             | 2.4             | 4            | Core              |
| H         | BUS HCM S1 08                             | Healthcare Economics  | 1.2             | 1.8             | 3            | Core              |
|           | Residence in Hospital (visit for 10 days) |   |                 |                 |              | Non Credit Course |
| Total     |   |   | 11.2            | 16.8            | 28           |                   |

### 22.2 Semester Two

| Exam Slot | Course Code  | Course Title                                     | Internal Credit | External Credit | Total Credit | Type       |
|-----------|--|--|-----------------|-----------------|--------------|------------|
| A         | BUS HCM S2 09  | Healthcare Service Marketing                     | 1.6             | 2.4             | 4            | Core       |
| B         | BUS HCM S2 10  | Financial Management in Healthcare               | 1.6             | 2.4             | 4            | Core       |
| C         | BUS HCM S2 11  | Healthcare Operations Management                 | 1.2             | 1.8             | 3            | Core       |
| D         | BUS HCM S2 12  | Healthcare Human Resource Management             | 1.6             | 2.4             | 4            | Core       |
| E         | BUS HCM S2 13  | Healthcare Entrepreneurship                      | 1.2             | 1.8             | 3            | Core       |
| F         | BUS HCM S2 14  | Hospital Project & Medical Facilities Management | 1.2             | 1.8             | 3            | Core       |
| G         | BUS HCM S2 15  | Healthcare & Insurance                           | 1.2             | 1.8             | 3            | Core       |
| H         | BUS HCM S2 16  | HIS & Disruptive Technologies                    | 1.2             | 1.8             | 3            | Core       |
|           | Audit Course (Skill Enhancement Programme as per the guidelines from the University) |  |                 |                 |              | Non Credit |
| Total     |  |  | 10.8            | 16.2            | 27           |            |

### 22.3 Semester Three

| Exam Slot    | Course Code   | Course Title                                   | Internal Credit | External Credit | Total Credit | Type         |
|--------------|---------------|--|-----------------|-----------------|--------------|--------------|
| A            | BUS HCM S3 17 | Strategic Healthcare Management                | 1.6             | 2.4             | 4            | Core         |
| B            | BUS HCM S3 18 | Healthcare Cost Management                     | 1.6             | 2.4             | 4            | Core         |
| C            | BUS HCM S3 19 | Supply Chain Management in Healthcare          | 1.2             | 1.8             | 3            | Core         |
| D            | BUS HCM S3 20 | Epidemiology                                   | 1.2             | 1.8             | 3            | Core         |
| E            | BUS HCM S3 21 | Healthcare Organizational Behaviour            | 1.6             | 2.4             | 4            | Core         |
| F            | BUS HCM S3 22 | Research Methodology for Healthcare Management | 1.2             | 1.8             | 3            | Core         |
| G            | BUS HCM S3 23 | Safe Medical Practices and Managed Care        | 1.2             | 1.8             | 3            | Core         |
|              | BUS HCM S3 24 | Minor Project (21days in a hospital)           | 1.2             | 1.8             | 3            | Dissertation |
| <b>Total</b> |               |  | <b>10.8</b>     | <b>16.2</b>     | <b>27</b>    |              |

## 22.4 Semester Four

| Exam Slot          | Course Code   | Course Title   | Internal Credit | External Credit | Total Credit | Type                                |
|--------------------|---------------|--|-----------------|-----------------|--------------|-------------------------------------|
| H                  | BUS HCM S4 25 | Service quality Management in Healthcare   | 1.2             | 1.8             | 3            | Core                                |
| I                  | BUS HCM S4 26 | Bio-Medical engineering  | 1.2             | 1.8             | 3            | Core                                |
| J                  | BUS HCM S4 27 | Medical Records Management   | 1.2             | 1.8             | 3            | Core                                |
| K                  | BUS HCM S4 28 | Hospital Disaster Management   | 1.2             | 1.8             | 3            | Core                                |
| L                  | BUS HCM S4 29 | Major Project (6 weeks) & Comprehensive Viva voce  | 2.4             | 3.6             | 6            | Dissertation                        |
| M                  | BUS HCM S4 30 | Any PG Management Course of 3 credits of NPTEL/ Online Courses approved by the University of Calicut |                 |                 | 3            | Compulsory Additional Credit Course |
| <b>Total</b>       |               |  | <b>7.2</b>      | <b>10.8</b>     | <b>21</b>    |                                     |
| <b>Grand Total</b> |               |  | <b>40</b>       | <b>60</b>       | <b>103</b>   |                                     |

## 23.0 Time Limit for Completion and Validity of Registration

The registration for MBA HCM shall be valid for five academic years including the academic year of registration. A student is expected to complete all the MBA HCM courses within these five years.

## **24.0 Failed students**

**24.1** If a student fails in any course or courses, he or she shall reappear in that course or courses in the regular examinations of the respective semester of any of the successive batches of MBA HCM students with a maximum of three chances (including regular and supplementary) per paper per semester within five years. If they fail to pass any course or courses within the five years, then they shall be required to re-register for the course they did not complete by paying the fees fixed by the university and appearing for the university examination.

## **25.0 Change in Curriculum and Chances for Students**

**25.1** If MBA HCM curriculum change is implemented in any year, the students who registered under the old scheme shall be allowed to appear in those courses in which they failed, subject to a total of three chances (including regular and supplementary) and a time limit of five academic years including the academic year of registration for MBA HCM.

## **26.0 Discontinuation and Readmission**

**26.1** If a student wants to discontinue from the MBA HCM programme, he or she can do it provided the student pays the fee as is required by the general regulations of the University. But readmission may be allowed only if the student has completed at least the first semester with a minimum of 75% attendance and has registered for University examinations in the first semester courses, provided the Department, Centre or Institute agrees to readmit him or her to the next semester of the MBA HCM programme.

## **27.0 Pass minimum**

**27.1** Each student shall secure a minimum of 50 percent in the university examination for each course for a pass in that course. The Grade Point Average (GPA) for each course will be calculated using the formula: (Marks obtained for the paper (from internals and university exam) / Maximum marks for the paper (Internal + University) \*4. The classification of Letter Grades based on the Grade Point Average (GPA) may be as follows:

| Letter grade | Range of Grade Point Average | Performance level |
|--------------|------------------------------|-------------------|
| A            | 3.5 to 4.0                   | Excellent         |
| B            | 2.5 to 3.49                  | Very good         |
| C            | 2.2 to 2.49                  | Good              |
| D            | 2.0 to 2.19                  | Average           |
| E            | 0.5 to 1.99                  | Poor              |
| F            | Below 0.5                    | Very poor         |

Pass Minimum for external examination: D Grade (50% marks; GPA 2)

Pass Minimum for internal examination: D Grade (50% marks; GPA 2)

Pass Minimum for a course: D Grade: (50% marks; GPA 2)

Minimum SGPA for the Successful Completion of a Semester: 2.0

Minimum CGPA for the Successful Completion of a Programme: 2.0

Calculation of CGPA on the completion of the programme is calculated as:

$$\frac{\sum \text{GPA of the papers} * \sum \text{Credit of the papers}}{\sum \text{Credit of all the papers}}$$

Percentage Equivalent to CGPA is calculated as:  $(\text{CGPA} * 100) / 4$

**28.0** The student can be permitted to opt for a 3 credit PG Level MOOC Course that is directly relate to their area of specialization from SWAYAM NPTEL during Semester Four. The student shall pursue the MOOC Course during Semester Three or Semester Four. However, the student must get approval to enroll for the course from the Institution in which they are pursuing MBA HCM Degree. Upon the submission of the transcript and grade for the NPTEL Course to the Institution, before the submission of the Semester Four Internal Assessment marks in the University portal, the same shall be counted as a Compulsory Additional Credit Course.

## **29.0 Exception Clause**

**29.1** For any Clause or Clauses mentioned above does not sufficiently explains or silent with regard to the scheme, syllabi and regulation in respect of administration of Course or Courses or the entire Programme and the final award of MBA HCM Degree, MBA HCM (CUCSS) Regulation and Common PG Regulation of University of Calicut is applicable.

**29.2** For all other matters which are not specified in this regulation the common regulation for PG Programme under CUCSS for affiliated colleges will be applicable.

## **30.0 MBA Part-Time Programme**

**30.1** All the above provisions are applicable to the MBA Part-Time Programme. In addition, to be eligible for admission to the MBA Part Time Programme, a candidate should have a minimum of three years' work experience with any organization. In the absence of employed candidates, such seats can be filled by candidates other than employees.

**30.2** The duration of the programme shall be **four** semesters spanning over **two** years with a minimum of three hours of lecture on every working day and six hours' lectures on Sundays and Public Holidays. In all semesters the total number of contact hours of MBA Part-time programme must be equal to total number of contact hours of regular MBA Programme.

**31.0 Scheme of Instruction and Examination of Part Time MBA Programme:** It is same as that of full time MBA programme mentioned in the regulation

## **MBA HCM - SYLLABUS**

**First Semester**

| <b>SL. No.</b> | <b>COURSE NAME</b>  | <b>Internal Credit</b> | <b>External Credit</b> | <b>Total Credit</b> | <b>Type</b>       |
|----------------|---|------------------------|------------------------|---------------------|-------------------|
| 1.             | Business and Healthcare Communication                       | 1.2                    | 1.8                    | 3                   | Core              |
| 2.             | Principles of Hospital Administration & Healthcare Ethics   | 1.6                    | 2.4                    | 4                   | Core              |
| 3.             | Business and Medical Laws                                   | 1.2                    | 1.8                    | 3                   | Core              |
| 4.             | Healthcare Environment                                      | 1.2                    | 1.8                    | 3                   | Core              |
| 5.             | Fundamentals of Medical Science                             | 1.6                    | 2.4                    | 4                   | Core              |
| 6.             | Quantitative Techniques for Healthcare Management Decisions | 1.6                    | 2.4                    | 4                   | Core              |
| 7.             | Accounting for Healthcare Managers                          | 1.6                    | 2.4                    | 4                   | Core              |
| 8.             | Healthcare Economics  | 1.2                    | 1.8                    | 3                   | Core              |
|                | Residence in Hospital (visit for 10 days)                   |                        |                        |                     | Non Credit Course |
|                | <b>Total</b>  | <b>11.2</b>            | <b>16.8</b>            | <b>28</b>           |                   |



| <b>Second Semester</b> |  |                        |                        |                     |             |
|------------------------|--|------------------------|------------------------|---------------------|-------------|
| <b>SL. No.</b>         | <b>COURSE NAME</b>   | <b>Internal Credit</b> | <b>External Credit</b> | <b>Total Credit</b> | <b>Type</b> |
| 9.                     | Healthcare Service Marketing   | 1.6                    | 2.4                    | 4                   | Core        |
| 10.                    | Financial Management in Healthcare   | 1.6                    | 2.4                    | 4                   | Core        |
| 11.                    | Healthcare Operations Management   | 1.2                    | 1.8                    | 3                   | Core        |
| 12.                    | Healthcare Human Resource Management   | 1.6                    | 2.4                    | 4                   | Core        |
| 13.                    | Healthcare Entrepreneurship  | 1.2                    | 1.8                    | 3                   | Core        |
| 14.                    | Hospital Project & Medical Facilities Management                                     | 1.2                    | 1.8                    | 3                   | Core        |
| 15.                    | Healthcare & Insurance   | 1.2                    | 1.8                    | 3                   | Core        |
| 16.                    | HIS & Disruptive Technologies  | 1.2                    | 1.8                    | 3                   | Core        |
|                        | Audit Course (Skill Enhancement Programme as per the guidelines from the University) |                        |                        |                     | Non Credit  |
|                        | <b>Total</b>   | <b>10.8</b>            | <b>16.2</b>            | <b>27</b>           |             |

| <b>Third Semester</b> |  |                        |                        |                     |              |
|-----------------------|--|------------------------|------------------------|---------------------|--------------|
| <b>SL. No.</b>        | <b>COURSE NAME</b>                             | <b>Internal Credit</b> | <b>External Credit</b> | <b>Total Credit</b> | <b>Type</b>  |
| 17                    | Strategic Healthcare Management                | 1.6                    | 2.4                    | 4                   | Core         |
| 18                    | Healthcare Cost Management                     | 1.6                    | 2.4                    | 4                   | Core         |
| 19                    | Supply Chain Management in Healthcare          | 1.2                    | 1.8                    | 3                   | Core         |
| 20                    | Epidemiology                                   | 1.2                    | 1.8                    | 3                   | Core         |
| 21                    | Healthcare Organizational Behaviour            | 1.6                    | 2.4                    | 4                   | Core         |
| 22                    | Research Methodology for Healthcare Management | 1.2                    | 1.8                    | 3                   | Core         |
| 23                    | Safe Medical Practices and Managed Care        | 1.2                    | 1.8                    | 3                   | Core         |
| 24                    | Minor Project (21 days in a hospital)          | 1.2                    | 1.8                    | 3                   | Dissertation |
|                       | <b>Total</b>                                   | <b>10.8</b>            | <b>16.2</b>            | <b>27</b>           |              |

| <b>Fourth Semester</b> |  |                        |                        |                     |              |
|------------------------|--|------------------------|------------------------|---------------------|--------------|
| <b>SL. No.</b>         | <b>COURSE NAME</b>   | <b>Internal Credit</b> | <b>External Credit</b> | <b>Total Credit</b> | <b>Type</b>  |
| 25                     | Service quality Management in Healthcare   | 1.2                    | 1.8                    | 3                   | Core         |
| 26                     | Bio-Medical engineering  | 1.2                    | 1.8                    | 3                   | Core         |
| 27                     | Medical Records Management   | 1.2                    | 1.8                    | 3                   | Core         |
| 28                     | Hospital Disaster Management   | 1.2                    | 1.8                    | 3                   | Core         |
| 29                     | Major Project (6 weeks) & Comprehensive Viva voce  | 2.4                    | 3.6                    | 6                   | Dissertation |
| 30                     | Any PG Management Course of 3 credits of NPTEL/ Online Courses approved by the University of Calicut |                        |                        | 3                   |              |
|                        | <b>Total</b>   | <b>7.2</b>             | <b>10.8</b>            | <b>21</b>           |              |

## SEMESTER 1

UNIVERSITY OF CALICUT

**MASTER OF BUSINESS ADMINISTRATION (HEALTH CARE MANAGEMENT)**  
**BUS-HCM-S1-01 BUSINESS AND HEALTH CARE COMMUNICATION**

Time: 45hrs

3Credit

### Introduction:

Effective communication is vital in both business and healthcare settings. This course purposes to equip students with the necessary skills to traverse various aspects of communication within the healthcare industry. By understanding the intricacies of business communication and its application in healthcare contexts, students will develop essential competencies to succeed in healthcare administration roles. Additionally, the course stresses personal development to enhance students' overall effectiveness and professionalism.

### Course Objectives:

- To understand the process of business communication.
- To acquire required skills to manage business communication effectively.
- To educate awareness about and aid in the development of students' personalities

### Course Outcomes:

By the end of the Course, the student will be able to...

| Course Outcome Number | Blooms Taxonomy Levels (BTL) | Course Outcome  |
|-----------------------|------------------------------|---|
| BUS HCM S1 01 1       | L2                           | Explain the fundamental concepts of business communication.   |
| BUS HCM S1 01 2       | L3                           | Apply various methods of business communication in healthcare contexts.                                     |
| BUS HCM S1 01 3       | L3                           | Demonstrate effective non-verbal communication techniques in healthcare settings.                           |
| BUS HCM S1 01 4       | L4                           | Utilize effective listening and interviewing skills in healthcare interactions.                             |
| BUS HCM S1 01 5       | L5                           | Demonstrate proficiency in group communication and presentation skills relevant to healthcare environments. |

### CO - PO Mapping

|                 | PO1 | PO2 | PO3 | PO4 | PO5 |
|-----------------|-----|-----|-----|-----|-----|
| BUS HCM S1 01 1 | 2   | 1   | 1   | 1   | 1   |
| BUS HCM S1 01 2 | 3   | 3   | 2   | 2   | 2   |
| BUS HCM S1 01 3 | 3   | 3   | 2   | 2   | 2   |
| BUS HCM S1 01 4 | 3   | 3   | 2   | 2   | 2   |
| BUS HCM S1 01 5 | 3   | 3   | 2   | 2   | 2   |

### Module I : 9 Hrs.

Business Communication - meaning - need - process - methods - written, verbal, non-verbal, Visual, telecommunications; - internal and external, upward and downward, lateral; barriers to communication - physical, psychological, linguistic, mechanical.

### Module II : 9Hrs.

Communication through letters, business letters, layout of letters, kinds of business letters, Characteristics of a good letter; application for appointment - resume - references; Appointment orders; Business enquiries - offers and quotations; orders- execution of orders - Cancellation of orders. Letters of complaint, letters of agency - status enquiries; circulars. -Circular letters; notices; reports by individuals; reports by committees; annual report; writing of reports.

### Module III : 9Hrs.

Non-verbal communication: Types - Body language - kinesics - proxemics, Effective listening: Principles of effective listening; factors affecting listening. - Interviewing skills: appearing in interviews; conducting interviews.

#### Module IV : 9Hrs.

Self-development and Communication; development of positive personal attitudes; SWOT Analysis, Personality Development; concept of personality, concept of self, perception; Personality types; - Games and exercises; Business games, Group Discussions; mock interviews; seminars; effective listening exercises; Public Speaking; preparing and delivering effective public speeches. Physical exercises; Yoga and Meditation for personality development

#### Module V : 9Hrs.

Group communication Meetings: need, importance & planning of Meetings, drafting of notice, agenda, minutes & resolutions of Meeting, writing memorandum, press release, press conference, Business etiquettes – netiquettes, telephonic & table etiquettes. Presentation Skills What is a presentation: elements of presentation- designing a presentation, advanced visual support for business presentation, types of visual aid, appearance & posture, practicing delivery of presentation.

#### References:

1. Dan O'Hair et al. Strategic Communications in Business and the Professions, Pearson, 2008.
2. Dalmar Fisher, Communication in Organizations, Jaico Publishing House, Mumbai, 1999.
3. Thill Bovee and Schatzman, Business Communication Today, Pearson, 2004.
4. Chaturvedi P.D. and Mukesh Chaturvedi: Business Communication, Pearson Education New Delhi 2013.
5. Nithin Bhatnagar & Mamta Bhatnagar: Effective Communication and Soft Skills, Pearson Education New Delhi 2013.
6. Balasubramanyam: Business Communications; Vikas Publishing House, Delhi.
7. Kaul: Effective Business Communications; Prentice Hall, New Delhi.
8. Sangheetha Magan: Business Communication, International Book House, New Delhi
9. Charlene Elliott and Josh Greenberg: Communication and Health: Media, Marketing and Risk, Springer Nature Singapore 2022
10. Balachandra V. Adkoli and Subhash Chandra Parija : Effective Medical Communication, Springer Nature Singapore 2020
11. Dan O'Hair et al. Strategic Communications in Business and the Professions, Pearson, 2008
12. Michael P. Pagano and Michael P. Pagano: Health Communication for Health Care Professionals: An Applied Approach, Springer publishing company 2016
13. Dalmar Fisher, Communication in Organizations, Jaico Publishing House, Mumbai, 1999.
14. Thill Bovee and Schatzman, Business Communication Today, Pearson, 2004.
15. Chaturvedi P.D. and Mukesh Chaturvedi: Business Communication, Pearson Education New Delhi 2013.
16. Nithin Bhatnagar & Mamta Bhatnagar: Effective Communication and Soft Skills, Pearson Education New Delhi 2013.
17. Balasubramanyam: Business Communications; Vikas Publishing House, Delhi.
18. Kaul: Effective Business Communications; Prentice Hall, New Delhi.
19. Sangheetha Magan: Business Communication, International Book House, New Delhi

**UNIVERSITY OF CALICUT**  
**MASTER OF BUSINESS ADMINISTRATION (HEALTH CARE MANAGEMENT)**  
**BUS-HCM-S1- 02 - PRINCIPLES OF HOSPITAL ADMINISTRATION & HEALTHCARE ETHICS**  
**60 HOURS** **4 CREDITS**

**Introduction:**

Hospital administration and healthcare ethics are critical components of healthcare management. This course aims to provide students with a comprehensive understanding of the fundamental principles of hospital administration and ethical considerations in healthcare. Students will explore into topics such as management principles, organizational structures of hospitals, leadership styles, and medical ethics to develop essential skills for effective healthcare management.

**Course Objectives:**

- To impart students with a thorough understanding of the fundamental principles of hospital administration.
- To familiarize students with the concepts and practices involved in managing healthcare organizations effectively.
- To provide students with an understanding of healthcare regulations and compliance guidelines.

**Course Outcomes:**

By the end of the Course, the student will be able to...

| Course Outcome Number | Blooms Taxonomy Levels (BTL) | Course Outcome  |
|-----------------------|------------------------------|---|
| BUS HCM S1 02 1       | L2                           | Explain the fundamental principles of hospital administration                           |
| BUS HCM S1 02 2       | L3                           | Apply management concepts and practices in healthcare organizations.                    |
| BUS HCM S1 02 3       | L4                           | Examine the challenges and characteristics of healthcare organizations.                 |
| BUS HCM S1 02 4       | L4                           | Evaluate ethical obligations and codes of conduct in the medical field.                 |
| BUS HCM S1 02 5       | L5                           | Develop strategies for addressing ethical issues and dilemmas in healthcare management. |

**CO - PO Mapping**

|                 | PO1 | PO2 | PO3 | PO4 | PO5 |
|-----------------|-----|-----|-----|-----|-----|
| BUS HCM S1 02 1 | 3   | 2   | 1   | 1   | 1   |
| BUS HCM S1 02 2 | 3   | 3   | 2   | 2   | 2   |
| BUS HCM S1 02 3 | 3   | 3   | 2   | 2   | 2   |
| BUS HCM S1 02 4 | 3   | 3   | 2   | 2   | 2   |

|                 |   |   |   |   |   |
|-----------------|---|---|---|---|---|
| BUS HCM S1 02 5 | 3 | 3 | 2 | 2 | 2 |
|-----------------|---|---|---|---|---|

#### Module 1 : 12Hrs.

Management - Nature and Scope -Managerial Roles by Mintzberg-Levels of Management - Henry Fayol's 14 Principles -Management Vs Administration

#### Module 2 : 12Hrs.

Planning – Organizing – Staffing – Directing – Controlling Organizational Structure of Hospitals - Governing Board, Executive Board and Advisory Board - Medical Administration, Nursing Administration and Hospital Administration - Roles and Responsibilities of Managers in Hospitals

#### Module 3 : 12Hrs.

Classification of Service Organizations, Characteristics and Challenges - Types of Healthcare Organizations and Composition of Healthcare Sector - Types of Hospitals and Role of Hospital in Healthcare - Challenges of Healthcare Organizations - Manager Vs Leader, Leadership and Motivation ,Leadership styles– Theories of motivation, MBO, Management of Performance ,Understanding and managing group processes; Characteristics of Work Group, work group behavior and productivity. Team Creation and management.

#### Module 4: 12Hrs.

Medical ethics-meaning, objective, importance and nature of ethics. Sources of ethics-values, norms, beliefs and standards. theories of ethics. Ethical obligations in medical world-Indian instrument of ethical obligations-code of medical ethics 1972-Hippocratic oath –Declaration of Geneva-Declaration of Tokyo 1975-The international code of medical ethics-professional conduct, Etiquette and code of ethics-“Duty to take care and duty to treat”-Non malfeasance.

#### Module 5 : 12Hrs.

Medical ethical issues-Abortion-Euthanasia and Physician-Assisted suicide-conception, contraception prenatal sex –determination –IVF, AID, SIFT, GIFT, ZIFT, Genetic Engineering-stress and burnout malpractice- gender discrimination-professional privacy and confidentiality- Medical Negligence- Charging of fees, Fee-splitting-Prescription of drugs-Over –investigating the patient.

#### References:

1. B.M. Sakharkar, Principles of Hospital Administration and Planning (Jaypee Brothers Medical Publishers Pvt. Ltd., New Delhi)
2. C.M. Francis and et al., Hospital Administration (Jaypee Brothers Medical Publishers Pvt. Ltd., New Delhi)
3. S. Srinivasan (ed.), Management Process in Health Care (Voluntary Health Association of India, New Delhi)
4. Richard Edmund Ashcroft, Angus Dawson, Heather Draper: Principles of Health Care Ethics Wiley 2015
5. Erich E.H. Loewy, Roberta Springer Loewy:Textbook of Healthcare Ethics, Springer 2006

6. Kurt Darr :Ethics in Health Services Management ,Health Profession Press 2019
7. Souzy Dracopolou :Ethics and Values in Healthcare Management,Tylor and francis 2006
8. Koontz, H and Weihrich, H: Management, McGraw Hill Inc, New York, 1995.
9. Drucker, Peter, F: Management: Tasks, Responsibilities and Practices, Allied Publishers, New Delhi 2004.
10. Betman, Thomas S and Snell, Scott A.: Management: Competing in the New Era, Tata McGraw Hill, New Delhi 2003.
11. Dipak Kumar Bhattacharyya, Principles of Management: Text and Cases, Pearson, 2012
12. Jonsen, Albert, Siegler, Mark,and Winslade, William(2006).Clinical Ethics:A practical Approach to Ethical Decisions in Clinical Medicine.
13. Stephen P Robbins, and Mary Coulter, Management, Pearson, 2003

UNIVERSITY OF CALICUT  
MASTER OF BUSINESS ADMINISTRATION (HEALTH CARE MANAGEMENT)  
**BUS-HCM-S1- 03 BUSINESS AND MEDICAL LAWS**

**45 Hours**

**3credits**

**Introduction:**

This course, "Business and Medical Laws", aims to provide students with a comprehensive understanding of the legal framework governing healthcare operations. Through an exploration of various laws and regulations, students will gain insights into contractual obligations, company regulations, patient rights, and medical malpractice, among other key legal concepts.

**Course Objectives:**

- To provide students with an understanding of Business and Medical Laws.
- To familiarize students with the legal aspects of Medical and Malpractice negligence.
- To ensure students' knowledge regarding Healthcare regulations and compliance guidelines.

**Course Outcomes:**

By the end of the Course, the student will be able to...

| Course Outcome Number | Blooms Taxonomy Levels (BTL) | Course Outcome  |
|-----------------------|------------------------------|---|
| BUS HCM S1 03 1       | L2                           | Explain the fundamental principles of Business and Medical Laws.                          |
| BUS HCM S1 03 2       | L3                           | Analyze the legal implications of Medical and Malpractice negligence.                     |
| BUS HCM S1 03 3       | L3                           | Evaluate the impact of Healthcare regulations and compliance on healthcare organizations. |

|                 |    |   |
|-----------------|----|---|
| BUS HCM S1 03 4 | L4 | Convey strategies for ensuring legal compliance in healthcare practices and operations.         |
| BUS HCM S1 03 5 | L5 | Assess ethical and legal dilemmas in medical practice and propose appropriate courses of action |

### CO - PO Mapping

|                 | P01 | P02 | P03 | P04 | P05 |
|-----------------|-----|-----|-----|-----|-----|
| BUS HCM S1 03 1 | 3   | 2   | 2   | 0   | 0   |
| BUS HCM S1 03 2 | 0   | 3   | 2   | 0   | 0   |
| BUS HCM S1 03 3 | 0   | 3   | 1   | 0   | 2   |
| BUS HCM S1 03 4 | 3   | 2   | 1   | 0   | 0   |
| BUS HCM S1 03 5 | 0   | 0   | 3   | 1   | 2   |

#### Module I : 9Hrs.

Law of contract—Indian Contract Act 1872-essentials of a valid contract-offer, acceptance, Competence, consent, consideration, legality of objects-performance of Contracts — breach of Contract and remedies—quasi contracts. Special contracts—bailment- agency- Sale of Goods Act 1930 - definitions - essentials of a contract of sale and hire purchase- Sale and agreement to sell - goods, types - Conditions and warranties - transfer of property in goods - delivery - rights of an unpaid seller—auction sale.

#### Module II : 9Hrs.

Indian Companies Act 1956—Nature and types of companies - incorporation, commencement. Right to information Act 2005—salient features - information-request-fee—response- social issues. Consumer Protection Act-1986

#### Module III : 9Hrs.

Hospital Protection Act 2023 – Significance safe guarding, healthcare facilities, staff and patience – key provisions of the Act related to Violence prevention, property protection and legal recourse for incidents.

Kerala Public Health Act 2023 – Overview of Kerala Public Health Act – Objectives in promoting Public Health disease control and environment sanitation – Key Provisions addressing public health emergencies communicable disease management, and responsibilities of Healthcare state holders.

#### Module IV : 9Hrs.

Law on medical practices- Consent to Medical Treatment- variety of conditions, criteria, limitations Refusal of Medical Treatment- Withholding and Withdrawing Care-medical futility-duty to prolong

life- euthanasia, physician assisted suicide (PAS). Medical negligence- the law of negligence. Patient Confidentiality- content - circumstances which constitute exceptions.

#### Module V : 9Hrs.

Human Rights and Medical Practice- reasons- issues of access to health care, role of human rights.



Research and Ethical Approval-attitudes, conditions, standards and safeguards. Mental Capacity and Mental Health- issues of mental health law, Genetics, Reproduction and the Law

**Reference:**

1. Gulshan: Business law
2. M.C. Kuchhal, Business Laws, Vikas
3. M.C. Shukla: Mercantile Law, S. Chand New Delhi, 2010
4. B. N. Tandon: Indian Company Law
5. Negotiable Instrument Act.
6. Right to Information Act
7. Jonathan Herring: Medical Law and Ethics ,OUP OXFORD 2012
8. Mahesh Menon, Bismi Gopalakrishnan, Krishnangshu Ray : Legal Aspects of Healthcare and Hospital Administration, Bloomsberry 2016
9. Webb :Oxford Textbook of Critical Care ,Oxford press university 2019

UNIVERSITY OF CALICUT  
MASTER OF BUSINESS ADMINISTRATION (HEALTH CARE MANAGEMENT)  
**BUS-HCM-S1- 04 HEALTH CARE ENVIRONMENT**

**45 HOURS**

**3 CREDITS**

**Introduction:**

This course, "Health Care Environment" aims to provide students with an in-depth insight into the current landscape of healthcare, including the latest changes and government policies. Through a multidimensional exploration of the internal and external factors shaping healthcare delivery, students will develop a comprehensive understanding of the challenges and opportunities inherent in healthcare management.

**Course Objectives:**

- Provide a foundational understanding of the current healthcare environment.
- Raise awareness of recent changes and developments in the hospital environment.
- Familiarize students with government policies impacting the healthcare sector.

**Course Outcomes:**

By the end of the Course, the student will be able to...

| Course Outcome Number | Blooms Taxonomy Levels (BTL) | Course Outcome   |
|-----------------------|------------------------------|--|
| BUS HCM S1 04 1       | L2                           | Validate a basic understanding of the various dimensions of the healthcare environment.        |
| BUS HCM S1 04 2       | L3                           | Analyze recent changes and their implications for hospital operations and healthcare delivery. |

|                 |    |  |
|-----------------|----|--|
| BUS HCM S1 04 3 | L3 | Evaluate government policies and their impact on healthcare practices and organizational dynamics. |
| BUS HCM S1 04 4 | L4 | Formulate strategies for adapting to evolving healthcare regulations and environmental factors.    |
| BUS HCM S1 04 5 | L4 | Create knowledge of epidemiological principles to assess and address public health challenges      |

### CO - PO Mapping

|                 | PO1 | PO2 | PO3 | PO4 | PO5 |
|-----------------|-----|-----|-----|-----|-----|
| BUS HCM S1 04 1 | 2   | 0   | 1   | 0   | 0   |
| BUS HCM S1 04 2 | 0   | 3   | 0   | 0   | 0   |
| BUS HCM S1 04 3 | 0   | 3   | 1   | 0   | 1   |
| BUS HCM S1 04 4 | 0   | 3   | 1   | 0   | 0   |
| BUS HCM S1 04 5 | 0   | 3   | 1   | 0   | 0   |

Module I : 9Hrs.

Introduction – Theoretical frame work – Environment – Internal and External – Environmental scanning – Economic Environment – Competitive Environment – natural Environment – Politico Legal Environment  
– socio Cultural Environment- International and Technological Environment.

Module II : 9Hrs.

A Conceptual Approach to Understanding the Health Care Systems – Evolution – Institutional Settings – Out Patient services – Medical Services – surgical Services – Operating Department – Pediatric services – Dental services – Psychiatric services – casualty & Emergency services – Hospital Laboratory services – Anesthesia services – Obstetrics and Gynecology services – Neuro – Surgery service – Neurology services.

Module III : 9Hrs.

Overview of Health care sector in India – Primary care – Secondary care – Tertiary care – Rural Medical care – urban medical care – curative care – preventive care – General & special Hospitals – Understanding the hospital management – Role of medical, Nursing staff, Paramedical and Supporting Staff – Health Policy – Population Policy – Drug Policy – Medical Education Policy

Module IV : 9Hrs.

Health Care Regulation – WHO, International Health Regulations, IMA, MCI, State Medical Council Bodies, Health universities and Teaching Hospitals and other Health care Delivery Systems

Module V : 9Hrs.

Epidemiology – Aims – Principles – Descriptive, Analytical and Experimental Epidemiology – Methods – Uses

References:

1. Paul's Reading in Economics, Tata McGraw Hill, New Delhi, 1992
2. Dwivedi, D.N. Microeconomic Theory, Vikas Publications, New Delhi, 1996
3. Seth, M.L., Lakshminarayana Agarwal, Macroeconomics, Edu, Pub. agra. 1996
4. Varshey, R.L. & Maheshwari, K.L. Managerial Economics, Sulthan Chand, Delhi, 1996
5. Peter, Z. & Fredrick, B., Health Economics, Oxford Pub., New York, 1997
6. Shanmugansundaram, Y., Health Economics, Oxford Pub. New York, 1997 Mills
7. A & Lee, K., Economics of Health, OUP, Oxford, 1983.
8. Liz Haggard, Sarah Hosking, Healing the Hospital Environment: Design, Maintenance, and Management of Healthcare Premises
9. Park JE, Park K., Textbook of preventive and social medicine, 20<sup>th</sup> edition, Banarsidas Bhanot Publishers. 2009
10. S.L GOEL, Healthcare Management and Administration, Deep & Deep publications Pvt.Ltd., New Delhi.
11. Dr. Mukul Burghate : Health Care and Hospital Environment, Mukul Burghate
12. Liz Haggard, Sarah Hosking, Healing the Hospital Environment: Design, Maintenance, and Management of Healthcare Premises, Tylor and Francis 2003
13. B M Sakharkar : Principles of Hospital Administration and Planning, Jaypee Brothers Medical Publishers 2008
14. DC Joshi, Mamta Joshi Hospital Administration, Jaypee Brothers Medical Publishers 2022
15. Dr. Ashwani Gupta : Hospital Administration and Management: A Comprehensive Guide, Academic Guru Publishing House 2023
16. D. K. Sharma, R. C. Goyal : HOSPITAL ADMINISTRATION AND HUMAN RESOURCE MANAGEMENT, PHI Learning
17. Park JE, Park K., Textbook of preventive and social medicine, 20<sup>th</sup> edition, Banarsidas Bhanot Publishers. 2009
18. S.L GOEL, Healthcare Management and Administration, Deep & Deep publications Pvt.Ltd., New Delhi.
19. S M Jha: Hospital administration, Himalaya publishing house, 2019
20. G. D. Kundurs, Hospitals: Facilities Planning and Management, Mc Graw Hill 2004
21. A V Srinivasan: Managing a Modern Hospital, Sage Publishers 2008
22. Sangeetha Natarajan: Hospital Supportive Service, Exell Books

UNIVERSITY OF CALICUT  
 MASTER OF BUSINESS ADMINISTRATION (HEALTH CARE MANAGEMENT)  
**BUS-HCM-S1- 05 FUNDAMENTALS OF MEDICAL SCIENCE**

**60 HOURS**

**4 CREDITS**

**Introduction:**

The course "Fundamentals of Medical Science" aims to provide students with a comprehensive understanding of human anatomy, physiology, medical ethics, and evidence-based medicine. Through an exploration of various modules, students will gain insights into genetic principles, body systems, hematology, gastrointestinal function, and microbiology, among other key medical science concepts.

**Course Objectives:**

- To provide students with an understanding of Human Anatomy, Physiology, and basic Structure.
- To familiarize students with the principles of Medical Ethics.
- To introduce students to Evidence-Based Medicine principles and practices.

**Course Outcomes:**

By the end of the Course, the student will be able to...

| Course Outcome Number | Blooms Taxonomy Levels (BTL) | Course Outcome  |
|-----------------------|------------------------------|---|
| BUS HCM S1 05 1       | L2                           | Explain the fundamental concepts of Human Anatomy, Physiology, and basic Structure.                               |
| BUS HCM S1 05 2       | L3                           | Analyze ethical dilemmas in healthcare and apply Medical Ethics principles to resolve them.                       |
| BUS HCM S1 05 3       | L3                           | Evaluate the importance of Evidence-based medicine and its application in healthcare decision-making processes.   |
| BUS HCM S1 05 4       | L4                           | Formulate strategies to ensure ethical practices and adherence to evidence-based medicine in healthcare settings. |
| BUS HCM S1 05 5       | L5                           | Assess the impact of genetic principles and microbiology on healthcare practices and patient outcomes.            |

**CO - PO Mapping**

|                 | P01 | P02 | P03 | P04 | P05 |
|-----------------|-----|-----|-----|-----|-----|
| BUS HCM S1 05 1 | 3   | 2   | 2   | 0   | 0   |
| BUS HCM S1 05 2 | 3   | 3   | 2   | 0   | 2   |
| BUS HCM S1 05 3 | 3   | 3   | 0   | 1   | 0   |
| BUS HCM S1 05 4 | 3   | 2   | 1   | 0   | 0   |
| BUS HCM S1 05 5 | 3   | 2   | 1   | 0   | 2   |

Module 1 – 12 hrs

Fundamentals of genetic - genes chromosomes-heredity-chromosomal disorders-congenital diseases

Terms and Subdivisions –Cell structure and Cell division - Epithelium and glandular tissue –

Connective tissues – Cartilage – Lymphatic tissue – Nervous tissue – Vascular tissue – Muscular tissue – Skin and appendages

#### Module 2 – 12 hrs

Overview of Cardio Vascular System – Respiratory – Gastro Intestinal – Lymphatic – Endocrine – Central Nervous – Autonomic Nervous – Musculoskeletal – Excretory – Reproductive

#### Module 3 – 12 hrs

Introduction of Hematology – RBC – WBC – Platelets – Coagulation of Blood – Blood Groups – Blood Volume - Functional Anatomy of CVS – Conducting System – Properties – Cardiac Cycle – Cardiac output – Blood pressure – ECG – Special Circulation – Shock - Functional Anatomy of Respiratory System – Mechanism of respiration – Pressure changes – Transport of Gases – Regulation of respiration – Applied Physiology.

#### Module 4 – 12 hrs

Functional Anatomy of GIT – Secretions – Movements – Disorders- Digestion and Absorption - Functional Anatomy of Renal Physiology – Filtration- Secretion – Reabsorption – Micturition – Body temperature regulation and skin - Functional Anatomy of CNS – Synapse – Receptor – Reflex – Spinal cord with tracts – Motor system – Higher functions and disorders -Special senses – Olfaction – Taste – Audition – Vision - Functional Anatomy of Endocrine System

#### Module 5 – 12 hrs

Introduction to microbiology – History – Definitions – Classification of microbes – Parasites – Vectors – Disease causes and transmission – Common pathogenic bacteria – Viruses – Fungi – Parasites – Protozoa – Helminthes – Entomology – Vector of malaria – Filaria – Plague – Rodents – Sterilization – Methods – Applications – Home – Hospital – Community – Bacteriology of water – Milk – Food – Pasteurization – Sterilization-methods-applications.

#### References:

1. Anatomy and Physiology for Nurses, - Physiologoy: K. Madhavan Kutty
2. Microbiology: Ananthanarayan, - Parasitology: Chatterjee
3. Human anatomy – Prof.A.K.Dutta
4. Text Book of physiology – Vankatesh G
5. Manipal Manual of physiology – Dr. C N Chandrashekar
6. Text Book of Microbiology – Baveja

**UNIVERSITY OF CALICUT**  
**MASTER OF BUSINESS ADMINISTRATION**  
**BUS-HCM-S1- 06 QUANTITATIVE TECHNIQUES FOR HEALTHCARE MANAGEMENT**  
**DECISIONS**

**60 Hours**

**4 Credit**

**Introduction:**

The course on Quantitative Techniques for Management Decisions allows students with a scientific approach to decision-making when addressing business problems. It introduces various methods for applying mathematics to solve management problems quantitatively. Quantitative techniques (QT) encompass statistical and programming methods that support decision-making processes, especially in industry and business contexts. QT involves the use of numbers, symbols, and mathematical expressions, serving as enhancements to judgment and intuition. Rather than suggesting courses of action, quantitative techniques assess planning factors and alternatives as they arise.

**Course Objectives:**

- To develop a quantitative skill set by mastering statistical tools and techniques for optimizing business decisions.
- To cultivate the ability to apply appropriate statistical methods
- To equip students to evaluate findings to guide managerial decision-making.

**Course Outcomes:**

By the end of the Course, the student will be able to...

| Course Outcome Number | Blooms Taxonomy Levels (BTL) | Course Outcome   |
|-----------------------|------------------------------|--|
| BUS HCM S1 06 1       | L1                           | Define the basic laws, rules, mathematical and statistical techniques used in quantitative analysis.   |
| BUS HCM S1 06 2       | L2                           | Articulate the concepts, laws, approaches and tests used in analysing and interpreting quantitative data.  |
| BUS HCM S1 06 3       | L5                           | Validate the findings using statistical techniques from real life scenario.  |
| BUS HCM S1 06 4       | L2                           | Explain the Operation research techniques and their role in Managerial decision making.  |
| BUS HCM S1 06 5       | L3                           | Apply mathematical models for a real life situation to optimise cost and time and to know the principles of construction of Mathematical Models. |

**CO - PO Mapping**

|                 | <b>PO1</b> | <b>PO2</b> | <b>PO3</b> | <b>PO4</b> | <b>PO5</b> |
|-----------------|------------|------------|------------|------------|------------|
| BUS HCM S1 06 1 | 2          | 2          | 0          | 1          | 0          |

|                 |   |   |   |   |   |
|-----------------|---|---|---|---|---|
| BUS HCM S1 06 2 | 2 | 3 | 0 | 1 | 0 |
| BUS HCM S1 06 3 | 2 | 3 | 0 | 2 | 0 |
| BUS HCM S1 06 4 | 2 | 3 | 0 | 2 | 0 |
| BUS HCM S1 06 5 | 0 | 3 | 0 | 3 | 0 |

#### Module I : 12Hrs

Probability: basic concepts; approaches; theorems - addition, multiplication, conditional and Bayes; business applications of probability.

#### Module II : 12Hrs.

Probability distributions: random variable; expected value of random variable; Binomial distribution; Poisson distribution, Normal distribution and Exponential distribution.

#### Module III : 12Hrs.

Statistical inference: Basic concepts; standard error; central limit theorem; Sampling and types of sampling; large sample tests, small sample tests; tests for means; tests for proportions; tests for paired observations; Non-parametric tests – Chi-square test, sign test, Wilcoxon, Krushkal Wallis test, Waid –Wolfowitz test; analysis of variance.

#### Module IV : 12Hrs.

Operations Research: Scope and importance; Linear Programming- Applications, advantages and disadvantages – formulation of problem - assumptions - Graphic and simplex methods - Duality and shadow pricing; sensitivity analysis- simple problems.

#### Module V : 12Hrs.

Transportation and Assignment Problem - Transportation model and its applications in business problems - without degeneracy. Assignment Model and its applications to solution of business problems.

#### Reference:

1. Tulsian, P.C. and Vishal Pandey,: Quantitative Techniques, Pearson Education, New Delhi 2004.
2. Aczel: Complete Business Statistics, Tata Mc McGraw Hill, New Delhi.
3. Levine, David M, Timothy C. Krehbiel and Mark L.Berenson: Business Statistics, Pearson Education, New Delhi 2004.
4. Richard L.Levin and David S. Rubin;“Statistics for Management”, Prentice Hall of India, New Delhi.
5. N.D. Vora:“Quantitative Techniques in Management”, Tata McGraw Hill, New Delhi.
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7. Hooda, R.P.:“Statistics For Business and Economics”, Macmillan, New Delhi.
8. GC Beri, Business Statistics, Tata McGraw Hill Co, New Delhi
9. Hamdy A. Taha, Operations Research, Pearson, 2012.
- 10.Theirouf, R.J. and Klekamp, R.C.: Decision Making Through Operations Research, John Wiley, New York 1989.
- 11.Hillier, Frederick S and Lieberman, Gerald J: Introduction to Operations Research, Tata McGraw Hill, New Delhi 2003.
- 12.Hillier, Frederick S and Hillier, Mark S: Introduction to Management Science, Tata McGraw Hill, New Delhi 2004.
- 13.Mathur , K and Solow, D, Management Science, Eaglewood Cliffs, New Jersey Prentice Hall Inc,

1994.

14.Narang A.S., Linear Programming and Decision making, Sultan Chand, New Delhi 1995.

UNIVERSITY OF CALICUT  
MASTER OF BUSINESS ADMINISTRATION (HEALTH CARE MANAGEMENT)  
**BUS-HCM-S1-07 ACCOUNTING FOR HEALTH CARE MANAGERS**

**60 Hours**

**4 credits**

**Introduction:**

"Accounting for Health Care Managers" is designed to equip healthcare professionals with the necessary financial acumen required for effective managerial decision-making in healthcare settings. This course explores into the principles of financial and cost accounting, providing students with a comprehensive understanding of financial management within the healthcare sector.

**Course Objective:**

- To understanding the fundamental concepts of financial and cost accounting, including Generally Accepted Accounting Principles (GAAP) and International Financial Reporting Standards (IFRS).
- To develop proficiency in designing cost control techniques essential for managing healthcare costs efficiently.
- To acquire the necessary skills for the preparation of final accounts, including financial statements such as Profit and Loss Account and Balance Sheet.

**Course Outcomes:**

By the end of the Course, the student will be able to...

| Course Outcome Number | Blooms Taxonomy Levels (BTL) | Course Outcome  |
|-----------------------|------------------------------|---|
| BUS-HCM-S1-07 1       | L2                           | Explain the fundamental principles of financial and cost accounting, including GAAP, IFRS, and their application in healthcare.                               |
| BUS-HCM-S1-07 2       | L3                           | Design cost control techniques and strategies to manage healthcare costs effectively, considering revenue and capital expenditure.                            |
| BUS-HCM-S1-07 3       | L4                           | Prepare final accounts, including Profit and Loss Account, Balance Sheet, and other financial statements, in accordance with healthcare accounting practices. |
| BUS-HCM-S1-07 4       | L5                           | Apply modern accounting concepts such as Human Resource Accounting, Social Responsibility Accounting, and taxation compliance in healthcare settings.         |



|                 |    |   |
|-----------------|----|---|
| BUS-HCM-S1-07 5 | L5 | Exhibit proficiency in using accounting software like Tally for company creation, ledger management, and financial statement preparation. |
|-----------------|----|---|

### CO - PO Mapping

|                 | P01 | P02 | P03 | P04 | P05 |
|-----------------|-----|-----|-----|-----|-----|
| BUS-HCM-S1-07 1 | 3   | 3   | 2   | 0   | 0   |
| BUS-HCM-S1-07 2 | 3   | 3   | 2   | 0   | 0   |
| BUS-HCM-S1-07 3 | 3   | 2   | 1   | 0   | 0   |
| BUS-HCM-S1-07 4 | 3   | 2   | 1   | 0   | 0   |
| BUS-HCM-S1-07 5 | 3   | 3   | 2   | 2   | 2   |

#### Module I : 12Hrs.

Accounting system; Sources of financial information- Financial Accounting-Concepts and Conventions- Financial Accounting- Cost accounting and Management accounting- Generally Accepted Accounting Principles (GAAP)- Accounting standards- International accounting standards- Regulatory framework of financial reporting in India-International Financial Reporting Standards(IFRS).

#### Module II : 12Hrs.

Preparation of Financial Statement:- Books of account- Journalizing, posting, balancing and preparation of trial balance; preparation of financial statements- Relationship between Profit and loss Account and Balance Sheet.

#### Module III : 12Hrs.

Hospital accounting – Nature and functions of Hospital accounting - Accounts of Non-Trading concerns- Revenue and Capital Expenditure - Receipt and Payment Account - Income and Expenditure Statement - Balance Sheet- Special practices in Hospital Accounting- Consultant fee Accounting-Cross Subsidy Accounting.

#### Module IV : 12Hrs.

Modern Concepts in Accounting: Human Resource Accounting- Social Responsibility Accounting – Accounting and taxation – compliance of income tax – Service tax - GST.

#### Module V :12Hrs.

Accounting with Tally – Company creation – Ledger creation – Voucher entry – Accounts without inventory – Preparation of financial statements – Cash flow statements – Fund flow statements – Ratio analysis

#### References:

1. Introduction to Accounting—Pru Marriott & J R Edwards -Sage Publications
2. Accounting for Managers, NEC Guptha & Vidhu Bansal, International Book House

3. Steven A. Finkler, David Marc Ward, Thad D. Calabrese: Accounting Fundamentals for Health Care Management, Wiley 2013
4. Finkler, Thad Calabrese, David M. Ward: Accounting Fundamentals for Health Care Management, Wiley 2018
5. Louis C. Gapenski, Kristin Leanne Reiter: Healthcare Finance: An Introduction to Accounting, Wiley 2016
6. Steven A. Finkler, David Marc Ward, Thad D. Calabrese : Accounting Fundamentals for Health Care Management· Jones & Bartlett Learning 2013
7. William N. Zelman, Michael J. McCue, Noah D. Glick: Financial Management of Health Care Organizations: An Introduction to Fundamental Tools, Concepts and Applications· Wiley 2009
8. Financial accounting—Ashoka Banerjee - Excel publications, New Delhi, 2. Accounting principles—Anthony—Irwin Publishers
9. Financial Accounting of Management—Ambariash Gupta—Pearsons Education
10. Fundamentals of Financial Accounting—Narayanaswamy
11. Corporate Accounting—Dr. V.K. Goyal—Excel books
12. Introduction to Accounting—Pru Marriott & J R Edwards - Sage Publications

UNIVERSITY OF CALICUT  
MASTER OF BUSINESS ADMINISTRATION (HEALTH CARE MANAGEMENT)  
**BUS-HCM-S1-08 HEALTH CARE ECONOMICS**

45 Hours

3 credits

**Introduction:**

Understanding the economic principles underlying healthcare systems is vital for effective management and policymaking in the healthcare sector. This course provides students with a comprehensive overview of micro and macroeconomics as they apply to hospitals and the healthcare industry. Through an exploration of Indian healthcare policies and recent trends, students will gain insights into the economic dynamics shaping healthcare delivery and financing.

**Course Objectives:**

- To provide students with a comprehensive understanding of micro and macroeconomics, emphasizing their application in the hospital and healthcare sector.
- To familiarize students with Indian healthcare policies and recent trends, enabling them to analyze and interpret economic dynamics within the healthcare industry.
- To develop students' analytical skills to evaluate healthcare financing, market configurations, and the economic determinants of health, fostering their ability to assess and address economic challenges in healthcare management and policymaking.

**Course Outcomes:**

By the end of the Course, the student will be able to...

| Course Outcome Number | Blooms Taxonomy Levels (BTL) | Course Outcome   |
|-----------------------|------------------------------|--|
| BUS HCM S1 08 1       | L2                           | Explain the basic economic concepts and their relevance to healthcare.                 |
| BUS HCM S1 08 2       | L3                           | Analyze demand, supply, and elasticity of healthcare services.                         |
| BUS HCM S1 08 3       | L4                           | Evaluate the determinants of health and the economic evaluation in healthcare.         |
| BUS HCM S1 08 4       | L4                           | Assess market configurations and the implications for healthcare pricing and delivery. |
| BUS HCM S1 08 5       | L5                           | Analyze healthcare finances, policies, and trends in India.                            |

### CO - PO Mapping

|                 | PO1 | PO2 | PO3 | PO4 | PO5 |
|-----------------|-----|-----|-----|-----|-----|
| BUS HCM S1 08 1 | 3   | 2   | 1   | 1   | 1   |
| BUS HCM S1 08 2 | 3   | 3   | 2   | 2   | 2   |
| BUS HCM S1 08 3 | 3   | 3   | 2   | 2   | 2   |
| BUS HCM S1 08 4 | 3   | 3   | 2   | 2   | 2   |
| BUS HCM S1 08 5 | 3   | 3   | 2   | 2   | 2   |

Module I: 9Hrs.

Introduction of Economics

Nature of Economics Analysis - – functioning of Economic systems – Circular flow and interdependence of Economic activity – Basic Economic concepts – scarcity – Opportunity cost – Discounting principle – Concept of marginal Utility – Demand – Supply and Elasticity – Relevance of Economics to health and medical care.

Module II: 9Hrs.

Demand Analysis and Production Function

Utility analysis – Nature of Demand and determinants – law of demand – Elasticity of Demand – Supply Curves – Cost Concepts and Cost Analysis. Production function – production with one variable input.

Law of variable proportion: production with two variable inputs: production isoquant: isocost lines. Estimating production functions: cost concepts and break even analysis.

Module III: 9Hrs.

Health Determinants

Unique Nature of Health – Health as a Consumer and investment Good – Valuation of Health – Externalities in Health care – Economic Evaluation in Healthcare.

Module IV: 9Hrs.

Market Analysis

Market Configuration – price determination under different market conditions- nature and Characteristics of Health care markets – Demand for supply of health care services – Market failure and Government intervention and control.

Module: 9Hrs.

Health care Finances and Trends

Health care indicators – Health policies -Health care expenditure – Financing of Health care, Allocations under 5 year plans – National Rural Health Machine ( NRHM ) – Human Development indices. .Public Health in India: Public health challenges, cost concern, consumer empowerment, fostering experimentation in the health sector. New delivery and financing models, policy reform and entrepreneurial ventures, innovation in health delivery organization.

References:

1. Dwivedi D.N, Micro Economic Theory, Vikas publications, New Delhi 1996
2. 2 James Henderson , Health Economics and policy – South Western College publishing,
3. Paul S, Reading in Economics, Tata McGraw Hill
4. Rexford E Santerre , Health Economics Dryden Publishers, Florida ( USA) 2000
5. Mills.A.& Lee, k, Economics of Health, OUP Oxford, 1983
6. UNDP, Human Development report, OUP, Newyork
7. Peter Zweible , Health Economics, Oxford university Press, Oxford
8. V Raman Kutty, A Premier of Health Systems Economics, Allies Publication Ltd. New Delhi.
9. H.S.Rout&P.K.Panda, Health Economics in india, New Century Publications, New Delhi
10. Sherman Folland, Allen C. Goodman, Miron Stano, The Economics of Health and Health Care: Taylor & Francis 2017
11. Frank A. Sloan, Chee-Ruey Hsieh :Health Economics,MIT press 2017
12. Sherry Glied, Peter C. Smith: The Oxford Handbook of Health Economics OUP oxford 2013
13. Rexford E Santerre , Health Economics Dryden Publishers, Florida ( USA) 2000
14. Mills.A.& Lee, k, Economics of Health, OUP Oxford, 1983
15. UNDP, Human Development report, OUP, Newyork
16. Peter Zweible , Health Economics, Oxford university Press, Oxford
17. V Raman Kutty,A Premier of Health Systems Economics, Allies Publication Ltd. New Delhi.
18. H.S.Rout&P.K.Panda, Health Economics in india, New Century Publications, New Delhi
19. Dwivedi D.N, Micro Economic Theory, Vikas publications, New Delhi 1996
20. James Henderson , Health Economics and policy – South Western College publishing

To provide a basic understanding of various types of hospitals, their methods of working, physical layouts, working conditions, strategies, culture, policies, and structure of organizations

Pedagogy:

Students to visit minimum of 10 different hospitals (Govt. hospitals, Trust Hospitals, Single Specialty hospitals, super specialty/ corporate Hospitals, Nursing homes. etc.)

Evaluation – 100 marks / grade – Attendance / report writing / presentation of reports

Module I

Introduction to hospitals and health care facilities – Different types of hospitals

Module II

Description of functions of each facility

Module III

Visit to various hospitals guided by a faculty

1. Brief introduction given by Host Hospital Administer / Medical superintendent about the history and functioning of hospitals
2. Students tour the hospital and visit various departments
3. Students note down the salient features of each department they visit and prepare individual reports

Module IV

A structured report has to be presented by the students in each hospitals visit and one consolidated report by compiling all individual reports on the hospital

## SEMESTER 2

UNIVERSITY OF CALICUT

MASTER OF BUSINESS ADMINISTRATION (HEALTH CARE MANAGEMENT)

**BUS HCM S2 09 HEALTHCARE SERVICE MARKETING**

60 Hours

4 credits

**Introduction:**

Healthcare Service Marketing is a vital course that explores into the unique aspects of marketing within the healthcare industry. As the healthcare sector grows increasingly competitive and

consumer-centric, understanding how to effectively market healthcare services is critical. This course delivers students with a comprehensive overview of marketing principles, strategies, and practices tailored specifically to the healthcare environment. Students will learn to analyze market dynamics, develop targeted marketing strategies, and implement effective marketing plans to enhance the visibility and performance of healthcare services.

### Course Objectives:

- To understand the fundamentals of healthcare marketing
- To develop skills in identifying and targeting specific audiences within the healthcare sector.
- To create effective marketing strategies and campaigns for hospitals and healthcare organizations.

### Course Outcomes:

By the end of the Course, the student will be able to...

| Course Outcome Number | Blooms Taxonomy Levels (BTL) | Course Outcome  |
|-----------------------|------------------------------|---|
| BUS HCM S2 09 1       | L2                           | Understand the unique characteristics and challenges of the healthcare market.  |
| BUS HCM S2 09 2       | L3                           | Apply marketing concepts and strategies to develop targeted marketing plans for healthcare services.  |
| BUS HCM S2 09 3       | L4                           | Analyze consumer behavior and decision-making processes in the healthcare context.  |
| BUS HCM S2 09 4       | L5                           | Evaluate the effectiveness of different marketing strategies and tactics in the healthcare sector.  |
| BUS HCM S2 09 5       | L6                           | Create comprehensive marketing plans that integrate product, pricing, promotion, and distribution strategies specific to healthcare services. |

### CO - PO Mapping

|                 | PO1 | PO2 | PO3 | PO4 | PO5 |
|-----------------|-----|-----|-----|-----|-----|
| BUS HCM S2 09 1 | 3   | 1   | 0   | 0   | 0   |
| BUS HCM S2 09 2 | 3   | 2   | 0   | 0   | 0   |
| BUS HCM S2 09 3 | 3   | 3   | 0   | 0   | 0   |
| BUS HCM S2 09 4 | 3   | 3   | 0   | 0   | 0   |
| BUS HCM S2 09 5 | 3   | 3   | 0   | 0   | 0   |

Module I : 10Hrs.

Introduction to marketing management--Concept, nature and importance of marketing; Evolution of marketing concept; Marketing environment—Micro environment of marketing and macro environment of marketing –Domestic marketing and international marketing.

Module II : 10Hrs.

Consumer behavior- buying roles and behavior; Individual consumer behavior and institutional consumer behavior-- models of buying decision; factors influencing buying decision—cultural, social, personal and psychological factors—buying process—consumer adaptation process—changing pattern of consumer behavior.

Module III : 10Hrs.

Market segmentation, targeting and positioning – levels and patterns of segmentation; effective segmentation; market targeting; positioning methods and strategies. Marketing research - Scope and types of marketing research.

Module IV :15Hrs.

Product and pricing decisions- Concept of product; product line and product mix; new product development; packaging and branding; brand extensions; Pricing decisions factors influencing price decisions; pricing strategies; Product life cycle stages and strategic marketing decisions; Promotion and Distribution-Promotion mix; advertisement budget; media planning; measuring advertisement effectiveness. Sales promotion - objectives, tools and techniques. Distribution channels- physical distribution decisions; channel intermediaries; channel management. Wholesaling and retailing- retail marketing, retail formats.

Module V :15Hrs.

Marketing organization and control systems- organizing marketing department; marketing control techniques- annual plan control, profitability control, strategic control.

Services marketing –Basic concepts- product Vs services marketing-Service characteristics and marketing implications-Service marketing mix-service quality- service strategies- Health care services marketing.

Compulsory case..

REFERENCES:

1. Kotler, Philip and Gary Armstrong: Principles of Marketing, Pearson Education, New Delhi 2004.
2. Stanton, W.J., Fundamentals of Marketing, McGraw Hill, New York 1994.
3. Saxena, Rajan: Marketing Management, Tata McGraw Hill, New Delhi 2004.

4. Kotler, Philip: Marketing Management, Pearson Education, New Delhi 2005.
5. Ramaswamy, V.S. and Namakumari S: Marketing Management, Macmillan, New Delhi, 2003.
6. Rajendra P. Maheswari, Marketing Management, International Book House, 2012
7. Neelamegham, S, Marketing in India; Cases and Readings, Vikas New Delhi, 1988
8. Ravisanker, Services marketing. Excel books.
9. Gamini Gunawardane; Modern Health Care Marketing, world scientific publishing company, 2020
10. Richard K. Thomas: Health Services Marketing: A Practitioner's Guide, Springer 2008
11. Berkowitz: Essentials of Health Care Marketing, Jones & Bartlett Learning 2016
12. John L. Fortenberry: Cases in Health Care Marketing, Jones & Bartlett Learning, 2011

UNIVERSITY OF CALICUT  
MASTER OF BUSINESS ADMINISTRATION (HEALTH CARE MANAGEMENT)  
**BUS HCM S2 10 FINANCIAL MANAGEMENT IN HEALTH CARE**

60 Hours

4 credits

**Introduction:**

Financial Management in Healthcare is an essential course that equips students with the knowledge and skills required to manage financial resources in healthcare organizations effectively. The course covers a range of financial management concepts, including budgeting, investment decision-making, and capital structure management, tailored specifically to the healthcare sector. Understanding these financial principles is essential for ensuring the financial stability and growth of healthcare institutions in an increasingly complex and regulated environment.

**Course Objectives:**

- To comprehend the various financial functions undertaken by finance managers in healthcare settings.
- To analyze the impact of financial decisions on the financial health and performance of healthcare enterprises.

**Course Outcomes:**

By the end of the Course, the student will be able to...

| Course Outcome Number | Blooms Taxonomy Levels (BTL) | Course Outcome   |
|-----------------------|------------------------------|--|
| BUS HCM S2 10 1       | L2                           | Understand the objectives and functions of financial management in healthcare organizations. |
| BUS HCM S2 10 2       | L3                           | Analyze and evaluate investment decisions using capital                                      |



|                 |    |  |
|-----------------|----|--|
|                 |    | budgeting techniques specific to healthcare environments.  |
| BUS HCM S2 10 3 | L4 | Assess and determine appropriate capital structure decisions considering the unique financial characteristics of healthcare institutions |
| BUS HCM S2 10 4 | L5 | Implement effective working capital management strategies to optimize liquidity and operational efficiency in healthcare settings        |
| BUS HCM S2 10 5 | L6 | Evaluate different sources of long-term finance and formulate dividend policies relevant to healthcare organizations.                    |

### CO - PO Mapping

|                 | P01 | P02 | P03 | P04 | P05 |
|-----------------|-----|-----|-----|-----|-----|
| BUS HCM S2 10 1 | 3   | 1   | 0   | 0   | 0   |
| BUS HCM S2 10 2 | 3   | 3   | 0   | 0   | 0   |
| BUS HCM S2 10 3 | 3   | 3   | 0   | 0   | 0   |
| BUS HCM S2 10 4 | 3   | 3   | 0   | 0   | 0   |
| BUS HCM S2 10 5 | 3   | 3   | 0   | 0   | 0   |

Module I: 10Hrs.

Financial Management—objectives—profit maximization, wealth maximization— finance function—role of finance manager—strategic financial management—economic value added—time value of money.

Module II : 15Hrs.

Investment decision—capital budgeting techniques—pay back method—accounting rate of return—NPV—IRR—discounted pay back method—capital rationing—risk adjusted techniques of capital budgeting—capital budgeting practices.

Module III : 15Hrs.

Capital structure decisions—cost of capital—computation of cost of debt, preference shares, equity and retained earnings—weighted average cost of capital—Theories of capital structure—NI approach-NOI approach-traditional—MM theory—indifference point— fair Capitalization—over and under capitalization.

Module IV : 10Hrs.

Working capital management—factors determining working capital—estimation of working capital—inventory management techniques—receivables management— management of cash and marketable securities—techniques of cash management— committees on working capital and their findings and recommendations.

Module V : 10Hrs.

Sources of long term finance—conventional and innovative sources—Leasing — Factoring —

securitization—dividend theories—Walter's model—Gordens model—MM approach—legal aspects of dividend—formulation of dividend policy. Corporate governance. Financial Engineering

(Coverage of the questions: 60% Problems and 40 percent theory)

**References:**

1. Van Home James.C: Financial management and policy, (Prentice Hall of India)
2. Jim Mc Menamin : Financial management- An Introduction, ( Oxford)
3. Pandey. I.M: Financial Management, (Vikas Publishing House)
4. Ravi M Kishore: Financial Management, ( Taxmann)
5. William N. Zelman, Michael J. McCue, Noah D. Glick:Financial Management of Health Care Organizations,wiley 2009
6. Reinhold Gruen, Ann Howarth: Financial Management in Health Services,McGraw-Hill Education,2005
7. Michael Nowicki:Introduction to the Financial Management of Healthcare ,HAP/AUPHA, Health Administration Press, 2018

**UNIVERSITY OF CALICUT**  
**MASTER OF BUSINESS ADMINISTRATION (HEALTH CARE MANAGEMENT)**  
**BUS HCM S2 11 HEALTHCARE OPERATIONS MANAGEMENT**

**45 HOURS**

**3 credits**

**Introduction:**

Healthcare Operations Management is an important course designed to equip students with the knowledge and skills necessary to effectively plan, design, organize, and manage various aspects of patient services in healthcare facilities. With a focus on clinical and supportive services, this course explores principles, methods, and strategies necessary for optimizing healthcare delivery and enhancing patient care outcomes.

**Course Objectives:**

- To provide an understanding of the planning, design, organization, and management of patient services in healthcare settings.
- To familiarize students with the principles and methods of organizing clinical and supportive services for hospitals of various sizes.
- To develop competencies in facility location and layout, inventory management, and purchasing strategies specific to healthcare operations.

**Course Outcomes:**

By the end of the Course, the student will be able to...

| Course Outcome Number | Blooms Taxonomy Levels (BTL) | Course Outcome  |
|-----------------------|------------------------------|---|
| BUS HCM S2 11 1       | L2                           | Describe the principles and methods of organizing clinical and supportive services for hospitals.                               |
| BUS HCM S2 11 2       | L3                           | Apply planning, designing, and managing patient services in various healthcare settings.  |
| BUS HCM S2 11 3       | L4                           | Analyze facility location and layout decisions for optimizing healthcare facility operations.                                   |
| BUS HCM S2 11 4       | L4                           | Evaluate inventory management strategies to enhance productivity and efficiency in healthcare operations.                       |
| BUS HCM S2 11 5       | L5                           | Develop purchasing strategies and apply tactical and operational approaches to procurement management in healthcare facilities. |

**CO - PO Mapping**

|                 | <b>PO1</b> | <b>PO2</b> | <b>PO3</b> | <b>PO4</b> | <b>PO5</b> |
|-----------------|------------|------------|------------|------------|------------|
| BUS HCM S2 11 1 | <b>3</b>   | <b>1</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   |
| BUS HCM S2 11 2 | <b>3</b>   | <b>3</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   |
| BUS HCM S2 11 3 | <b>3</b>   | <b>3</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   |
| BUS HCM S2 11 4 | <b>3</b>   | <b>3</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   |
| BUS HCM S2 11 5 | <b>3</b>   | <b>3</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   |

Module I : 9Hrs.

Principles and methods of Organising Clinical and supportive services for Hospitals of various sizes. Functions, Organisations, Staffing Pattern, Utilisation and workload, Records, Location and area, Equipments, standards and Evaluation.

Module II : 9Hrs.

Clinical Services – Out patient, In patient, Medical surgical obstetrics and Gynecological, Pediatrics, Orthopedics, Radio therapy, Casualty and Emergency, Intensive Care Unit, Physiotherapy and Operation theatre services, Physiotherapy and occupational therapy.

Module III : 9Hrs.

Supportive Services-Enquiry, Radiology, Admission Office, Business Office, Nursing Services, House Keeping, Pharmacy Services, Laundry Services, Blood Bank, Clinical Laboratory, Central sterile. Supply services, dietary Services, Medical records, maintenance and repairs, Medical and social services, out reach programmes, Mortuary.

Module IV :9Hrs.

Facility location and layout importance of location, factors, general steps in location and selection decision process, types of layout – product, process, service facility layout, work standards,

techniques of work measurements, time and motion study, standard time. PMT, work sampling calibration of hospital equipment's, productivity measures, value addition, capacity utilization, productivity – capital operations, HR incentives calculation-applications in hospitals.

Module V :9Hrs.

Purchasing strategy process-organizing purchasing functions-financial aspect of purchasing-tactical and operational applications in purchasing management inventory management; valuation and accounting for inventory – physical location and control of inventory – planning and replenishment concepts-protecting inventory; value management value engineering, value analysis.

References:

1. Corinne M. Karuppan, Michael R. Waldrum, Nancy E. Dunlap:Operations Management in Healthcare: Strategy and Practice, Springer Publishing Company 2016
2. Brian T. Denton; Handbook of Healthcare Operations Management, Springer New York 2013
3. Mac Eacheran M.T: Hospital Administration and management(3 rd Ed), 1957, Chicago
5. William James A: Hospital management in the tropics and subtropics: Macmillan, New Delhi
6. Robert C Benjamin and Rudolph C: Hospital Administration, Desk Book, Prentice Hall, New Jersey
7. Francis C.M: Hospital association: selected readings in Hospital Administration, New Delhi
8. Indian Hospital Association: Selected readings in Hospital Administration, New Delhi
9. Robinson G.A Hospital Administration: London, Butter worth
10. Peters R.J and Kinnaird J: Health services Administration, Edinburgh

**UNIVERSITY OF CALICUT**  
**MASTER OF BUSINESS ADMINISTRATION (HEALTH CARE MANAGEMENT)**  
**BUS HCM S2 12 HEALTH CARE HUMAN RESOURCES MANAGEMENT**

**60 Hours**

**4 credits**

**Introduction:**

Healthcare Human Resources Management (HRM) plays a vital role in ensuring the effective functioning of healthcare organizations by managing personnel to deliver optimal patient care. This course provides a comprehensive understanding of HRM principles tailored to the healthcare sector, covering key areas and best practices in managing human capital within hospitals.

**Course Objectives:**

- To develop a foundational understanding of HRM principles and their application in healthcare settings.
- To explore the unique challenges and key areas of HRM specific to the healthcare industry.

- To gain practical insights into HRM practices essential for effective management within hospitals.

### Course Outcomes:

By the end of the Course, the student will be able to...

| Course Outcome Number | Blooms Taxonomy Levels (BTL) | Course Outcome   |
|-----------------------|------------------------------|--|
| BUS HCM S2 12 1       | L2                           | Explain the evolution, scope, and objectives of HRM, distinguishing it from traditional Personnel Management, with a focus on healthcare contexts.       |
| BUS HCM S2 12 2       | L3                           | Analyze the process of human resource planning in healthcare, including forecasting techniques, recruitment strategies, and succession planning.         |
| BUS HCM S2 12 3       | L3                           | Evaluate recruitment, selection, and training processes in healthcare, identifying constraints, challenges, and best practices.                          |
| BUS HCM S2 12 4       | L4                           | Examine job analysis and performance appraisal methods, understanding their significance and application in healthcare organizations.                    |
| BUS HCM S2 12 5       | L4                           | Assess Human Resource Development strategies tailored for healthcare settings, including HRD climate, quality of work life (QWL), and change management. |

### CO - PO Mapping

|                 | PO1 | PO2 | PO3 | PO4 | PO5 |
|-----------------|-----|-----|-----|-----|-----|
| BUS HCM S2 12 1 | 3   | 1   | 0   | 0   | 0   |
| BUS HCM S2 12 2 | 3   | 3   | 0   | 0   | 0   |
| BUS HCM S2 12 3 | 3   | 3   | 0   | 0   | 0   |
| BUS HCM S2 12 4 | 3   | 3   | 0   | 0   | 0   |
| BUS HCM S2 12 5 | 3   | 3   | 0   | 0   | 0   |

Module I : 10Hrs.

Introduction—Importance--scope and objectives of HRM. Evolution of the concept of HRM- Approaches to HRM- Personnel management Vs Human Resource Management-HRM and competitive advantage- Traditional Vs Strategic human resource management— HRM and HRD-- Growth of HRM in India.

Module II :15Hrs.

Human resource planning,—meaning and definition, objectives of HRP- benefits of HRP- problems of HRP- process of HRP- HR demand forecasting techniques-HR supply forecasting skill inventories-management inventories- wastage analysis. Redundancy strategies- retention strategy- retention plan- macro level man power planning and labour market analysis-recruitment and succession planning. Organizational HR Planning- Stock taking- Workforce flow mapping- Age

and grade distribution mapping- Recruitment and succession planning.

Module III : 10Hrs.

Recruitment, Selection and Training - Recruitment--constraints and challenges of recruitment- source of recruitment-methods-Indian experience in recruitment-selection – Selection Process - Training of employees—need for training-objectives- approaches

Module IV : 15Hrs.

Job Analysis & Performance Appraisal - Job analysis—uses of job analysis process of job analysis- job description- job specification methods of job analysis —job evaluation- Performance appraisal - Need and importance- objectives- process methods and problems of performance appraisal- performance appraisal practices in India.

Module V : 10Hrs.

Human Resource Development- HRD climate; work culture- Quality of work life (QWL) and management of change- TQM andHRD strategies- HRD in strategic organization.

References:

1. Human Resource Management- Text and Cases-- VSP Rao
2. A hand Book of Personnel Management Practice-Dale Yolder
3. Human Resource Management—Snell, Bohlander
4. Personnel Management and Human Resources-Venkata Ratnam, Srivastava
5. Human Resource Management- Pravin Durai, Pearson, 2010
6. L. Fleming Fallon Jr., Charles R. McConnell: Human Resource Management in HealthCare ,Jones & Bartlett Learning 2013
7. Walter J. Flynn, Robert L. Mathis, John H. Jackson Healthcare Human Resource Management
8. Walter J. Flynn, Robert L. Mathis, John H. Jackson,Cengage Learning, 2015
9. Human Resource Management- Text and Cases-- VSP Rao
10. A hand Book of Personnel Management Practice-Dale Yolder
11. Human Resource Management—Snell, Bohlander
12. Personnel Management and Human Resources-Venkata Ratnam, Srivastava
13. Human Resource Management- Pravin Durai, Pearson, 2010

UNIVERSITY OF CALICUT  
MASTER OF BUSINESS ADMINISTRATION (HEALTH CARE MANAGEMENT)  
**BUS HCM S2 13 HEALTHCARE ENTREPRENEURSHIP**

45 Hours

3 credits

**Introduction:**

Healthcare Entrepreneurship is vital for addressing the dynamic challenges and evolving needs of the healthcare industry. This course aims to develop innovative thinking and entrepreneurial skills essential for identifying opportunities, conducting feasibility studies, exploring financing options, and engaging in healthcare consultancy.

**Course Objectives:**

- To foster students' interest in entrepreneurship and provide insights into starting and managing healthcare ventures.
- To enable students identify entrepreneurial opportunities and develop feasibility studies for healthcare ventures.
- To equip students with the skills necessary to analyze financing options and engage in healthcare consultancy.

**Course Outcomes:**

By the end of the Course, the student will be able to...

| Course Outcome Number | Blooms Taxonomy Levels (BTL) | Course Outcome   |
|-----------------------|------------------------------|--|
| BUS HCM S2 13 1       | L2                           | Define entrepreneurship and assess its importance in healthcare contexts.      |
| BUS HCM S2 13 2       | L3                           | Conduct comprehensive feasibility studies for healthcare ventures.             |
| BUS HCM S2 13 3       | L4                           | Evaluate various sources of finance available for healthcare entrepreneurship. |
| BUS HCM S2 13 4       | L5                           | Analyze the healthcare consultancy industry and its ethical considerations.    |
| BUS HCM S2 13 5       | L5                           | Engage effectively in the consulting process within healthcare management.     |

**CO - PO Mapping**

|                 | PO1 | PO2 | PO3 | PO4 | PO5 |
|-----------------|-----|-----|-----|-----|-----|
| BUS HCM S2 13 1 | 3   | 1   | 0   | 0   | 0   |
| BUS HCM S2 13 2 | 3   | 3   | 0   | 0   | 0   |
| BUS HCM S2 13 3 | 3   | 3   | 0   | 0   | 0   |
| BUS HCM S2 13 4 | 3   | 3   | 0   | 0   | 0   |
| BUS HCM S2 13 5 | 3   | 4   | 0   | 0   | 0   |

Module I : 10Hrs.

Overview of Entrepreneurship: Definition and meaning of Entrepreneurship- Characteristics and Function of Entrepreneur- Importance and Limitations of Entrepreneurship: Entrepreneurial Laboratory: Types of Entrepreneurs -Entrepreneurship Games- Innovation and Entrepreneurship. Idea generation: Brain Storming in terms for Project ideas, Normal Group Technique; Creativity. Lateral thinking; Research & Development, Reverse Engineering IPR, Patenting: Environment Scanning Opportunities in Health care; NGO Collaboration.

Module II: 10Hrs.

Feasibility Study: Operational Feasibility, Technical Feasibility, Market Feasibility, Financial Feasibility, Economic Forecasting, Project Report Writing. Support Systems for New Enterprise Creation, New Enterprise Identification and Selection Enterprise Establishment and Management

Module III : 7Hrs.

Sources of finance: Short term sources – Instruments – Long term sources Instruments – sources – Commercial banks, Development Agencies. Indian and international funding organizations, capital market venture and startup capital .

Module IV :8Hrs.

Overview of health care consultancy: Consulting industry with specific reference to hospital and health care consulting perspective. Professionalism and ethics in consulting consultant – Client Relationship, behavioral roles of consultants.

Module V : 10Hrs.

Consulting process in health care: Entry: Initial contracts – Preliminary problem diagnosis – Terms and reference – Assignment strategy and plan – proposal to the client – consulting contract

Diagnosis: Conceptual frame work of diagnosis – Diagnosing purpose and problem – Defining necessary facts – Sources and ways of obtaining facts – Data Analysis – Feed back. Action planning : possible solutions – evaluating alternatives – presentation of action. Implementation and termination : Consulting in various areas of health care management.

References:

1. J.B.Patel and D.G.Allampally : Manual on how you prepare a project report , Entrepreneurship Development Institute, Ahamadabad
2. J.B.Patel and S.S.Modi: Manual on business opportunity, identification and selection, Entrepreneurship Development Institute Ahamadabad
3. Edward Bono: Lateral Thinking, Penguin books, London 1990
4. Holt H.G.David : Entrepreneurship, Prentice Hall India publisher, New Delhi 2001
5. S.S Khanka : Entrepreneurial Development, S.Chand and Co New Delhi 2007
6. Anilkumar.S : Entrepreneurial Development, New Age Publications, New Delhi 2003
7. Vasanth Desai : Dynamics of entrepreneurial development and management, Himalaya publishing house

UNIVERSITY OF CALICUT

MASTER OF BUSINESS ADMINISTRATION (HEALTH CARE MANAGEMENT)

**BUS HCM S2 14 HOSPITAL PROJECT AND MEDICAL FACILITIES MANAGEMENT**

45 hours

3 credits

**Introduction:**

Hospital Project and Medical Facilities Management is an important course that covers the complexities and unique requirements of dealing healthcare projects. This course provides a solid foundation in project management principles and practices, focusing specifically on the healthcare sector. Students will gain insights into project life cycles, planning, control, and evaluation, as well as the interpersonal dynamics involved in managing teams and stakeholders



within healthcare projects.

**Course Objectives:**

- To provide a brief introduction to general issues of project management.
- To examine project management roles and environments, the project life cycles, and various techniques of work planning, control, and evaluation to achieve project goals.
- To increase awareness of how people work as team members and as individuals in project settings.

**Course Outcomes:**

By the end of the Course, the student will be able to...

| Course Outcome Number | Blooms Taxonomy Levels (BTL) | Course Outcome  |
|-----------------------|------------------------------|---|
| BUS HCM S2 14 1       | L2                           | Explain the fundamental concepts and need for project management in healthcare.                                       |
| BUS HCM S2 14 2       | L3                           | Explain the project development cycle and its application in healthcare projects.                                     |
| BUS HCM S2 14 3       | L4                           | Analyze the impact of people issues and change management on healthcare projects.                                     |
| BUS HCM S2 14 4       | L4                           | Apply project scheduling and control techniques, including WBS, Gantt charts, and PERT/CPM networks.                  |
| BUS HCM S2 14 5       | L5                           | Evaluate the role of Project Management Information Systems (PMIS) in project evaluation, reporting, and termination. |

**CO - PO Mapping**

|                 | P01 | P02 | P03 | P04 | P05 |
|-----------------|-----|-----|-----|-----|-----|
| BUS HCM S2 14 1 | 3   | 2   | 0   | 0   | 0   |
| BUS HCM S2 14 2 | 3   | 3   | 0   | 0   | 0   |
| BUS HCM S2 14 3 | 3   | 3   | 0   | 0   | 0   |
| BUS HCM S2 14 4 | 3   | 3   | 0   | 0   | 0   |
| BUS HCM S2 14 5 | 3   | 3   | 0   | 0   | 0   |

Module I : 9Hrs.

Project Management Concepts; Characteristics of a project - Need for project management - Roles of project managers in organizational environments - key objectives of project Management - Evolution of project management.

Module II : 9Hrs.

Project Development Cycle; Project life cycles - Conception - definition - execution - Operation - systems & procedures - Planning - Project organization structure and Responsibilities - project management system.

Module III : 9Hrs.

People issues in project management - Change - external forces of change - effect of change on the project manager - Leadership and motivation - Communication - Team - Cultural and Ethnic diversity - Setting goals and commitment

Module IV : 9Hrs.

Project Scheduling: WBS - Gantt Charts – Network Analysis: PERT/CPM Networks - Resource management-- Project control - purposes - approaches - project control process - project control process - Project control techniques - periodic control techniques - preventive control techniques - Cost control - managing risk in projects.

Module V : 9Hrs.

Project Management Information Systems (PMIS) - functions of PMIS - Project Evaluation, Reporting and Termination - project Evaluation, reporting closing the contract.

Functional plans for hospital construction-role of hospital consultants, planning stage, role of architects, working drawings, legal formalities- hospital sites, design considerations, environment regulations- equipment planning. Bed distribution- space requirements- construction cost.

#### References:

1. John M. Nicholas, Project Management for Business and Technology, New Delhi, 2004
2. Ghattas, R.G. and Sandra L McKee: Practical project management, Pearson, 2003
3. Joseph Phillips, Project Management Professional Study Guide, Tata McGraw Hill, 2004.
4. David I.Cleland, Project Management, McGraw Hill, Singapore, 1999.
5. Harold Kerzner, Project Management, CBS Publishers, 2004
6. K. Nagarajan, Project Management, New Age International, 2004.
7. Sid Kemp, Project Management Demystified, Tata McGraw Hill, 2004
8. Prasanna Chandra: Projects-planning, analysis selection-implementation &Review.
9. Hospital planning: WHO 1984.
10. Kunders GD, Gopinath .s and Katakam.A: Hospital planning- Design and Managemet, TMH
11. David Shirley:Project Management for Healthcare, CRC Press 2024
12. Ajay Garg, Anil Dewan: Manual of Hospital Planning and Designing, Springer Nature Singapore 2022
13. Buchbinder, Nancy H. Shanks: Introduction to Health Care Management, Jones & Bartlett Learning 2016

**Introduction:**

Understanding the changing aspects of insurance, particularly health insurance, is crucial in the realm of healthcare administration. The course "Health Care and Insurance" aims to provide students with comprehensive knowledge about insurance principles and practices, with a specific focus on health insurance. Through this course, students will delve into various health insurance policies, providers, and the regulatory framework governing the health insurance industry.

**Course Objectives:**

- To comprehend the fundamentals of insurance and its application in healthcare, with a specific emphasis on health insurance.
- To familiarize students with different health insurance policies, their features, and the considerations involved in selecting an appropriate health insurance product.
- To acquaint students with the administration of health insurance schemes, including governmental and private initiatives, and regulatory mechanisms.

**Course Outcomes:**

By the end of the Course, the student will be able to...

| Course Outcome Number | Blooms Taxonomy Levels (BTL) | Course Outcome   |
|-----------------------|------------------------------|--|
| BUS HCM S2 15 1       | L2                           | Explain the fundamental principles of insurance, with a focus on health insurance, including its functions and importance. |
| BUS HCM S2 15 2       | L3                           | Analyze different health insurance policies and their applicability within the Indian healthcare scenario.                 |
| BUS HCM S2 15 3       | L3                           | Evaluate the administration of health insurance schemes, such as CGHS and ESI, and their impact on social security.        |
| BUS HCM S2 15 4       | L4                           | Assess the taxation aspects of health insurance and the standardization of hospital services in the context of insurance.  |
| BUS HCM S2 15 5       | L5                           | Examine the roles and responsibilities of health insurance providers, regulators, insurers, and patients.                  |

**CO - PO Mapping**

|                 | PO1 | PO2 | PO3 | PO4 | PO5 |
|-----------------|-----|-----|-----|-----|-----|
| BUS HCM S2 15 1 | 3   | 3   | 2   | 0   | 0   |
| BUS HCM S2 15 2 | 3   | 3   | 2   | 0   | 0   |
| BUS HCM S2 15 3 | 3   | 2   | 1   | 0   | 0   |
| BUS HCM S2 15 4 | 3   | 2   | 1   | 0   | 0   |
| BUS HCM S2 15 5 | 3   | 3   | 2   | 2   | 2   |

Module I :9Hrs.

Introduction – Meaning and definition of Insurance – Functions – Need and importance – Principles of Insurance – Major Player of Insurance Industry – Insurance and Social Security – Concept of Health Insurance – Need of Health insurance – Factors considered for choosing a health insurance product – Major Health Insurance companies in India.

Module II :9Hrs.

Health policy vis-à-vis health insurance policies – Indian scenario - Different products – Demand and Scope – Limitations.

Module III :9Hrs.

Administration of health insurance schemes like CGHS and ESI and Social security measures. TPAs, Governing mechanisms including IRDA.

Module IV :9Hrs.

Health insurance Taxation. Standardization and grading of hospital services, Role of vigilance and real time information about the services.

Module V : 9Hrs.

Health insurance providers – Government and private – micro insurance, the role and responsibilities of provider – insurer – Patient and the Regulatory Agencies.

References:

1. Gupta, P.K, Insurance and Risk Management, Himalaya Publishing house,2004
2. Francesco Paolucci ,Health Care Financing and Insurance: Options for Design Springer Berlin Heidelberg 2019
3. Arunajatesan S and T R Viswanathan, Risk Management Insurance – concepts and practice of life and general insurance, MacMillan Publishers, New Delhi, 2009

**UNIVERSITY OF CALICUT**  
**MASTER OF BUSINESS ADMINISTRATION (HEALTH CARE MANAGEMENT)**  
**BUS HCM S2 16 HIS AND DISRUPTIVE TECHNOLOGIES**

45 HOURS

3 CREDITS

**Introduction:**

The course "Hospital Information Systems (HIS) and Disruptive Technologies" is designed to deliver students with a foundational understanding of HIS and the effect of disruptive technologies in healthcare. It aims to familiarize students with the latest advancements and challenges in healthcare technologies, including cyber security, cloud computing, and robotics.

This course prepares students to navigate and leverage these technologies for improved healthcare management and delivery.

### Course Objectives:

- To give a basic understanding of Hospital Information Systems (HIS).
- To create awareness about disruptive technologies in healthcare.
- To provide knowledge about the latest developments in healthcare technologies.

### Course Outcomes:

By the end of the Course, the student will be able to...

| Course Outcome Number | Blooms Taxonomy Levels (BTL) | Course Outcome  |
|-----------------------|------------------------------|---|
| BUS HCM S2 16 1       | L2                           | Explain the fundamental concepts and challenges of disruptive technologies in HIS.  |
| BUS HCM S2 16 2       | L2                           | Describe the basics of cyber security and its applications in healthcare.           |
| BUS HCM S2 16 3       | L3                           | Apply the principles of cloud computing to hospital information systems.            |
| BUS HCM S2 16 4       | L3                           | Analyze the role of tracking systems and various informatics in healthcare.         |
| BUS HCM S2 16 5       | L4                           | Evaluate the applications and challenges of robotics and telemedicine in healthcare |

### CO - PO Mapping

|                 | PO1 | PO2 | PO3 | PO4 | PO5 |
|-----------------|-----|-----|-----|-----|-----|
| BUS HCM S2 16 1 | 3   | 2   | 0   | 0   | 0   |
| BUS HCM S2 16 2 | 3   | 2   | 0   | 0   | 0   |
| BUS HCM S2 16 3 | 3   | 3   | 0   | 0   | 0   |
| BUS HCM S2 16 4 | 3   | 3   | 0   | 0   | 0   |
| BUS HCM S2 16 5 | 3   | 3   | 0   | 0   | 0   |

### Module I : 9Hrs.

Overview of Disruptive technologies in HIS, Challenges & Types - Structure of management Information System specific to hospital, - Information for control, decision & statutory need, Feedback, Information & data, Decision making process - Hierarchy of management activities, Document preparation, Data capture, Project of Life Cycle.

### Module II :9Hrs.

Introduction to Cyber Security, Challenges & Applications - Physical system design, physical database design, programme development - procedural development, input output design - on line Dialogue, Design of files & auxiliary storage devices - Data communication, Project life cycle

installation & Operation - Conversion, Operation - documentation maintenance & post audit system evaluation - System Approach

Module III :9Hrs.

Introduction to Cloud Computing, Applications & Challenges - Approaches to hospital information system - Various HIS Modules Development - Patient based, Functional organization based, User department based, Clinical information system, Medical Record, Nursing Info system, Appointment scheduling, Dissemination of diagnostic information, Registration, General Administration & productivity.

Module IV :9Hrs.

Introduction to tracking systems and its applications - Healthcare Informatics - Clinical Informatics, Public Health Informatics, Community Health Informatics & Home Health Informatics - Nursing Informatics - Medical Informatics - Clinical Bio-informatics - Informatics for Education & Research in Health & Medicine

Module V :9Hrs.

Introduction to Robotics – Challenges Area used and its applications - Telemedicine, knowledge management, information Technology integration, LAN, WAN.

**References:**

1. Hospital Information System by Kekalkar
2. Management Information System by Srivastava, Jaypee Publication
3. Managing a modern hospital – AV Srinivasan- Sage Publication

# SEMESTER 3

UNIVERSITY OF CALICUT

MASTER OF BUSINESS ADMINISTRATION (HEALTH CARE MANAGEMENT)

**BUS HCM S3 17 STRATEGIC HEALTH CARE MANAGEMENT**

**60 Hours**

**4 Credits**

## **Introduction:**

Strategic Health Care Management is a critical area that enables healthcare organizations to traverse complex environments, improve operational efficiency, and attain sustainable growth. This course provides an in-depth understanding of strategic management fundamentals, tools, and techniques necessary for developing and implementing effective strategies. Students will learn to devise strategies tailored to healthcare establishments, enhancing their ability to lead and manage these organizations effectively.

## **Course Objectives:**

- To comprehend the fundamentals of Strategic Management.
- To impart knowledge on the tools and techniques used for developing and implementing strategies and understand their interdisciplinary nature.
- To aid devise strategies for managing healthcare establishments.
- To cultivate the capability to formulate and implement strategies.
- To deliver knowledge to students to develop new tool kits for developing strategies to suit their organization at different levels.

## **Course Outcomes:**

By the end of the Course, the student will be able to...

| Course Outcome Number | Blooms Taxonomy Levels (BTL) | Course Outcome  |
|-----------------------|------------------------------|---|
| BUS HCM S3 17 1       | L2                           | Describe the fundamental concepts and importance of strategic management in healthcare organizations.       |
| BUS HCM S3 17 2       | L3                           | Relate various strategic analysis tools to assess the competitive landscape and organizational environment. |
| BUS HCM S3 17 3       | L4                           | Analyze and develop strategic alternatives at corporate and business levels.                                |
| BUS HCM S3 17 4       | L4                           | Evaluate organizational structure and leadership roles in   |

|                 |    |  |
|-----------------|----|--|
|                 |    | the context of strategic management.   |
| BUS HCM S3 17 5 | L5 | Implement and control strategic initiatives using appropriate frameworks and models. |

### CO - PO Mapping

|                 | PO1 | PO2 | PO3 | PO4 | PO5 |
|-----------------|-----|-----|-----|-----|-----|
| BUS HCM S3 17 1 | 3   | 2   | 1   | 1   | 1   |
| BUS HCM S3 17 2 | 3   | 3   | 1   | 1   | 1   |
| BUS HCM S3 17 3 | 3   | 3   | 2   | 2   | 2   |
| BUS HCM S3 17 4 | 3   | 2   | 3   | 2   | 2   |
| BUS HCM S3 17 5 | 3   | 3   | 3   | 3   | 3   |

#### Module I :10Hrs.

Strategic Management – Business Policy – Meaning and Nature, Importance and Limitations of Strategic Management – Concept of Strategy - Types of Strategy - Business Strategy – functional strategy – global strategy and corporate strategy – Strategic Levels in an organization –Strategic Management in Not profit Organisations – Health Care organisations

#### Module II :15Hrs.

Dynamics of Competitive Strategy – Competitive Landscape – Strategic Analysis - Change Drivers - Strategic Group Mapping – Environment Analysis – Industry Analysis – Corporate Analysis – General Environment Scanning – Core Competence – Competitive Advantage – Internal and External Analysis -SWOT Analysis - TOWS Matrix – PESTLE Analysis – Gap Analysis – Scenario Analysis – Value Chain Analysis - Experience Curve analysis – Critical Success Factor Analysis – BCG Matrix, GEC Model, 7 S Framework – Stakeholders’ Expectation Analysis –Ansoff’s Product Market Growth Matrix – ADL Matrix - Scenario Planning

#### Module III :15Hrs.

Strategic Management Process – Strategic Intent – Vision Mission and Objectives – Strategy Formulation – Concepts and Nature of Corporate Strategy - Cascade Strategy Maturity Models – Strategic Alternatives at Corporate Level – Stability – Growth/Expansion – Business Combinations (Mergers and Acquisitions) – Strategic Alliances – Retrenchment/Turnaround – Combination – Competitive Strategies at Business Level – Michael Porter’s Generic Strategies – Best-Cost Provider Strategy – Functional Strategies – Marketing Strategy – Financial Strategy – Operations Strategy – Human Resource Strategy – Research and Development

#### Module IV :10Hrs.

Organisation and Strategic Leadership – Organisation Structure – Strategic Business Unit – Strategic Leadership – Strategy Supportive Culture – Entrepreneurship and Intrapreneurship – New Developments in Strategic Leadership

#### Module V :10Hrs.

Strategy Implementation and Control – Strategy Implementation – Strategic Change – Strategic



Control – Red Ocean Vs. Blue Ocean Strategy – VRIO Framework – Du Pont's Control Model – Strategy Audit – Business Process engineering – Balance Score Card – Benchmarking.

References:

1. William Glueck: Business Policy – Strategic formulation and Management Action
2. Rue: Strategic Management
3. Donal F Harvey: Business Policy and Strategic Management
4. R. M. Srivastava: Management policy and Strategic Management
5. Ravi M. Kishore: Strategic Management: Text and Cases
6. Francis Cherunilam: Business Policy and Strategic Management
7. Azhar Kasmi : Business Policy
8. Bhattacharya : Strategic Management
9. Linda E. Swayne, W. Jack Duncan, Peter M. Ginter: Strategic Management of Health Care Organizations,wiley 2012
10. Stephen Walston:Strategic Healthcare Management,Health Administration Press 2018
11. Jeffrey P. Harrison: Essentials of Strategic Planning in Healthcare,Health Administration Press 2020

UNIVERSITY OF CALICUT  
MASTER OF BUSINESS ADMINISTRATION (HEALTH CARE MANAGEMENT)  
**BUS HCM S3 18 HEALTHCARE COST MANAGEMENT**

**60 Hours**

**4 Credits**

**Introduction:**

**Healthcare Cost Management" is a specialized course designed to equip students with essential tools, techniques, and concepts of cost accounting applied within the healthcare sector. This course aims to provide a comprehensive understanding of cost control and cost management strategies crucial for effective financial management in healthcare organizations. Students will gain proficiency in techniques like marginal costing, process costing, and contemporary cost management practices, enabling them to make informed financial decisions in healthcare management.**

**Course Objective:**

- To know the applications of cost accounting tools, techniques and concepts in managerial decision making process
- To provide knowledge about cost management and control techniques

**Course Outcomes:**

By the end of the Course, the student will be able to...

| Course Outcome Number | Blooms Taxonomy Levels (BTL) | Course Outcome   |
|-----------------------|------------------------------|--|
| BUS HCM S3 18 1       | L2                           | Explain various cost concepts and classifications, including cost behavior and cost sheet preparation.                   |
| BUS HCM S3 18 2       | L3                           | Apply marginal costing and cost-volume-profit (CVP) analysis for effective healthcare decision-making.                   |
| BUS HCM S3 18 3       | L4                           | Analyze costing methods in the service sector, including operating costs in hospitals and service cost analysis.         |
| BUS HCM S3 18 4       | L5                           | Design and implement cost control and reduction strategies, emphasizing value analysis and engineering                   |
| BUS HCM S3 18 5       | L5                           | Utilize contemporary cost management techniques, such as Activity-Based Costing, Target Costing, and Lean Manufacturing. |

### CO - PO Mapping

|                 | P01 | P02 | P03 | P04 | P05 |
|-----------------|-----|-----|-----|-----|-----|
| BUS HCM S3 18 1 | 3   | 3   | 2   | 0   | 0   |
| BUS HCM S3 18 2 | 3   | 3   | 2   | 0   | 0   |
| BUS HCM S3 18 3 | 3   | 2   | 2   | 0   | 0   |
| BUS HCM S3 18 4 | 3   | 3   | 2   | 2   | 0   |
| BUS HCM S3 18 5 | 3   | 3   | 2   | 3   | 3   |

#### Module I :10 Hours

Cost Concept-Classification of Cost-Element wise classification-Functional wise classification - Classification for exercising control over costs- Classification based on cost behaviour- cost sheet.

#### Module II : 10 Hours

Marginal Costing - Definition and Meaning-Features of marginal Costing-Marginal Costing and Absorption Costing- Break Even and CVP Analysis - Application of Marginal Costing in Decision Making.

#### Module III : 20 Hours

Costing in Service Sector-Service Cost Units- Service Cost Analysis-Operating Cost Statement-Transport- Hotels - Hospitals. Process Costing - Joint Product and By Product-Equivalent Production

#### Module IV : 10 Hours

Cost control and Cost reduction-Need and Importance-Cost control process-Cost reduction Process-Methods and techniques of cost control and reduction- Value analysis and Engineering-Impact of Value analysis of on profit volume and value

Module V: 10 Hours

Contemporary Cost Management – Activity Based Costing and Management – Target Costing – Kaizen costing – JIT – Lean Manufacturing - Theory of Constraints – Life cycle costing.

**References:**

1. "Cost Accounting: A Managerial Emphasis" by Charles T. Horngren, Srikant M. Datar and Madhav V. Rajan
2. Contemporary Cost Management by Don R. Hansen and Maryanne M. Mowen
3. Blocher and Chen: Cost Management – Mc Gray – Hill
4. Cost Management- Ravi M Kishore, Taxman Publication
5. Jain & Narang: Cost Accounting – Kalyani publications
6. Jawaharlal, COST ACCOUNTING, Tata McGraw Hill
7. Asish K Bhattacharyya: principles and practice of cost accounting; PHI Learning, New Delhi
8. Blocher and Chen: Cost Management—Mc Gray,- Hill3. Jain & Narang: Cost Accounting—Kalyani Publications
9. Buchbinder, Nancy H. Shanks: Introduction to Health Care Management, Jones & Bartlett Learning 2016
10. William N. Zelman, Michael J. McCue, Noah D. Glick: Financial Management of Health Care Organizations, Wiley 2009

UNIVERSITY OF CALICUT  
MASTER OF BUSINESS ADMINISTRATION  
**BUS HCM S3 19 SUPPLY CHAIN MANAGEMENT IN HEALTH CARE**

Time: 45

3 credits

**Introduction:**

Supply Chain Management (SCM) is crucial for healthcare organizations to confirm the timely and efficient delivery of medical supplies and services. This course purposes to provide a comprehensive understanding of SCM principles and their use in healthcare settings. Students will learn about demand planning, sourcing, inventory control, and strategic alliances in the healthcare supply chain, along with the latest technological advancements in this field.

**Course Objectives:**

- To provide an understanding of supply chain principles and their importance in healthcare management.
- To equip students with knowledge of key supply chain concepts, performance metrics, and inventory control techniques specific to healthcare.
- To develop the ability to implement strategic alliances, technological advancements, and regulatory compliance in healthcare supply chain management.

**Course Outcomes:**

By the end of the Course, the student will be able to...

| Course Outcome Number | Blooms Taxonomy Levels (BTL) | Course Outcome  |
|-----------------------|------------------------------|---|
| BUS HCM S3 19 1       | L2                           | Explain the importance of supply chain principles in healthcare management.                               |
| BUS HCM S3 19 2       | L3                           | Apply key supply chain terminology and concepts to integrate healthcare processes.                        |
| BUS HCM S3 19 3       | L4                           | Analyze the performance metrics and strategic alliances in the healthcare supply chain.                   |
| BUS HCM S3 19 4       | L4                           | Evaluate different inventory control techniques and their applications in healthcare settings.            |
| BUS HCM S3 19 5       | L5                           | Implement export and import policies, including documentation and customs clearance for healthcare goods. |

**CO - PO Mapping**

|                 | <b>PO1</b> | <b>PO2</b> | <b>PO3</b> | <b>PO4</b> | <b>PO5</b> |
|-----------------|------------|------------|------------|------------|------------|
| BUS HCM S3 19 1 | <b>3</b>   | <b>2</b>   | <b>1</b>   | <b>1</b>   | <b>1</b>   |
| BUS HCM S3 19 2 | <b>3</b>   | <b>3</b>   | <b>2</b>   | <b>2</b>   | <b>2</b>   |
| BUS HCM S3 19 3 | <b>3</b>   | <b>3</b>   | <b>2</b>   | <b>2</b>   | <b>2</b>   |
| BUS HCM S3 19 4 | <b>3</b>   | <b>3</b>   | <b>2</b>   | <b>2</b>   | <b>2</b>   |
| BUS HCM S3 19 5 | <b>3</b>   | <b>3</b>   | <b>2</b>   | <b>2</b>   | <b>2</b>   |

**Module I :9Hrs.**

Importance of supply Chain principles to Healthcare management –Supply chain Drivers for Healthcare practices-Key Supply Chain Terminology and Concepts-Integrating Healthcare Processes through Supply Chain Principles-Healthcare Supply Chain :Demand planning-Healthcare Supply Chain: Sourcing –Healthcare Supply Chain: Making –Healthcare Supply Chain; Selling –healthcare Supply chain : Delivering –Interfaces among Healthcare Functions

**Module II :9Hrs**

Strategic Alliance among Healthcare Partners-finding right partners-Organizational learning through Partnerships-performance Metrics for the healthcare Supply chain-Key performance Indicators- Healthcare supply chain performance Metrics-Balanced Scorecard approach-technological evolution for managing Healthcare supply chains.-RFID Applications in Healthcare – RFID Vs Bar coding- Blue prints for the futuristic Healthcare supply chain.

Module III : 9Hrs.

Purchasing -Centralized purchasing Vs Decentralized purchasing-Group Purchasing-Principles of purchasing-Receipts and inspection of stores-points for consideration while inspecting the drugs-inventory control-types of inventory-lead time-Buffer stock-reorder level-optimum safety stock-Economic order quantity-Inventory Control costs.

Module IV :9Hrs.

Inventory analysis-ABC Analysis-VED Analysis-SDE Analysis-HML Analysis-FSN Analysis-Ordering systems-Cyclic ordering System-Fixed Order Quantity System-Stock verification system-Techniques of verification –steps for carrying out physical Verification-preservation of stores.-general precautions to avoid deterioration-Pilferage-preventive measures-Stores Documentation-Documents used for stores recording.

Module V :9Hrs.

Export policy-letter of credit-import of goods or equipments-general considerations- import documentation and Customs clearance –Imported medical equipment-procurement considerations.

References:

1. Honey Min,healthcare supply Chain management :Basic Concepts and Principles(Business Expert Press,LLC)
2. Shakti Gupta and Suil Kant,Hospital Stores management; An integrated Approach (Jaypee Publications,NewDelhi)
3. Chopra, Sunil and Peter Meindl: Supply Chain Management, Pearson Education, New Delhi 2005.

UNIVERSITY OF CALICUT  
**MASTER OF BUSINESS ADMINISTRATION (HEALTH CARE MANAGEMENT)**  
**BUS HCM S3 20 EPIDEMIOLOGY**

**45 Hours**

**3 credits**

**Introduction:**

**The "Epidemiology" course provides a foundational understanding of key epidemiological concepts, including measures of disease frequency, health disparities, and the public health system's role in managing disease. Students will explore the epidemiology of both communicable and non-communicable diseases, examining various study designs, principles of disease measurement, and risk factor analysis. This course is designed to equip students with essential epidemiological skills for research, healthcare decision-making, and disease prevention**

**Course Objectives:**

- To understand the basic concepts of epidemiology and disease measurement.
- To gain insights into healthcare disparities and health inequalities.
- To learn about the mechanisms of the public health system and approaches to disease prevention and control.

**Course Outcomes:**

By the end of the Course, the student will be able to...

| Course Outcome Number | Blooms Taxonomy Levels (BTL) | Course Outcome   |
|-----------------------|------------------------------|--|
| BUS HCM S3 20 1       | L2                           | Define and explain the basic measures of disease frequency and risk factors.   |
| BUS HCM S3 20 2       | L3                           | Analyze different epidemiological study designs and apply research principles to formulating research questions.       |
| BUS HCM S3 20 3       | L4                           | Evaluate core principles of health measurement and the process of disease diagnosis, screening, and measurement.       |
| BUS HCM S3 20 4       | L5                           | Demonstrate knowledge of communicable disease epidemiology and apply techniques for disease containment and control.   |
| BUS HCM S3 20 5       | L5                           | Assess the epidemiology of non-communicable diseases, identify risk factors, and discuss interventions for prevention. |

**CO - PO Mapping**

|                 | PO1 | PO2 | PO3 | PO4 | PO5 |
|-----------------|-----|-----|-----|-----|-----|
| BUS HCM S3 20 1 | 3   | 2   | 2   | 0   | 0   |
| BUS HCM S3 20 2 | 3   | 3   | 2   | 0   | 0   |
| BUS HCM S3 20 3 | 3   | 3   | 3   | 0   | 0   |
| BUS HCM S3 20 4 | 3   | 3   | 3   | 2   | 0   |
| BUS HCM S3 20 5 | 3   | 3   | 3   | 3   | 3   |

**Module I : 5Hrs.**

Fundamental measures of disease frequency (Prevalence, cumulative incidence, incidence density) and of risk factors-disease associations (risk, relative risk, attributable risk, odds, ratio) Applied measures of disease frequency. Guidelines for the development of a well-conceived research question. Overview and detailed aspects of the most relevant types of epidemic-logical study design: ecological design, cross sectional design, case control design, prospective and

retrospective cohort design, experimental design. Similarities and dissimilarities between epidemiological research and social science research types.

Module II : 12Hrs.

Core principles of health measurement and diagnosis (Validity, reliability, sensitivity to change, feasibility). Development of health measurement scales .Principle and applications of screening for disease .Source of bias in the interpretation of cytological prognostic and diagnostic research

Module III :12Hrs.

Epidemiological of communicable diseases: classification of communicable diseases-agents-vectors- disinfection-surveillance-investigation-containment-control-eradication. Respiratory infections-chicken pox-measles-rubella-influenza-mumps-diphtheria-whooping cough-meningitis-tuberculosis

Module IV : 12Hrs.

Intestinal infections-polio hepatitis-viral hepatitis-cholera-acute diarrhea disease-typhoid fever-food poisoning-amocbiasis, ascariasis-hookworm-helminthes infections-pinworm, Arthropod borne diseases- bionomics and control of vectors-malaria yellow fever-filarial-dracontiasis-dengue-encephalitis

Zoon sis-Rabies-Japanese Encephalitis-KFD-Brucellosis -plague-Human Salmonellosi-Teaniasis-Liydatid disease-Leishmaniasis -Leptospirosis -Rickettsiosis-Scrub Typhus-Maurine typhus-Tick Typhus

Module V :4Hrs.

Surface infections: Trachoma-Tetanus-Leprosy-STD-Yaws-Seabees-Ebola-HIV AIDS, Epidemiology of non-communicable diseases and conditions: Risk factors-gap in natural history Coronary heart Diseases-Hypertension-stroke-rheumatic heart disease, cancer-Diabetics-Obesity- Blindness-Accidents-Peptic ulcer-Arthritis Nutrition-Nutrition intervention for health promotion

Lifestyle diseases-Geriatrics-Mental Health

References:

1. Park K, Text Book of Preventive and social medicine, M/sBanarsida, Jabalpur
2. Robert L Heatal, Principles of Epidemiology-A self teaching guide, Academic Press, London
3. Morris.I.N, Uses of epidemiology, Churchill Livingstone, London
4. Holand WW Detels R, Text Book of Public health, Oxford, London
5. Kelsey.J.L, Methods of observational research, Oxford University Press, London
6. Strainer J.I, Norman G.R, Health measurement scales: A practical guide to their development and use, Oxford University Press, London
7. Abelin T, Measurement in health promotion & protection, WHO Regional Publications
8. Karis S, Lankinen et el. , Health and disease in developing countries, Macmillan Press, London

**UNIVERSITY OF CALICUT**  
**MASTER OF BUSINESS ADMINISTRATION (HEALTH CARE MANAGEMENT)**  
**BUS HCM S3 21 HEALTHCARE ORGANISATIONAL BEHAVIOUR**

**60 HOURS**

**4 Credits**

**Introduction:** The "Healthcare Organizational Behaviour" course offers a comprehensive exploration of behavioral principles within hospital environments. Students will learn to analyze individual and group behaviors, understand the impact of organizational climate, and manage conflicts effectively within healthcare settings. By examining topics like leadership, team dynamics, and organizational culture, this course equips students to foster a positive and productive atmosphere in healthcare organizations, enhancing both employee satisfaction and patient care quality.

**Course Objectives:**

- To understand the core principles of Organizational Behaviour (OB) within hospital settings.
- To gain insight into the organizational climate and its impact on healthcare management.
- To develop skills in managing conflicts effectively within hospital environments.

**Course Outcomes:**

By the end of the Course, the student will be able to...

| Course Outcome Number | Blooms Taxonomy Levels (BTL) | Course Outcome  |
|-----------------------|------------------------------|---|
| BUS HCM S3 21 1       | L2                           | Explain the key concepts of Organizational Behaviour and its relevance in hospital settings.                |
| BUS HCM S3 21 2       | L3                           | Analyze individual differences in interpersonal styles, personality, values, and motivation in healthcare.  |
| BUS HCM S3 21 3       | L4                           | Evaluate group behavior, team dynamics, and leadership styles and their impact on team effectiveness.       |
| BUS HCM S3 21 4       | L4                           | Assess the influence of organizational climate and culture on employee performance in hospitals.            |
| BUS HCM S3 21 5       | L5                           | Apply conflict management and organizational development strategies to promote a positive work environment. |

**CO - PO Mapping**



|                 | <b>P01</b> | <b>P02</b> | <b>P03</b> | <b>P04</b> | <b>P05</b> |
|-----------------|------------|------------|------------|------------|------------|
| BUS HCM S3 21 1 | <b>3</b>   | <b>2</b>   | <b>1</b>   | <b>0</b>   | <b>0</b>   |
| BUS HCM S3 21 2 | <b>3</b>   | <b>3</b>   | <b>2</b>   | <b>0</b>   | <b>0</b>   |
| BUS HCM S3 21 3 | <b>2</b>   | <b>3</b>   | <b>3</b>   | <b>2</b>   | <b>0</b>   |
| BUS HCM S3 21 4 | <b>2</b>   | <b>3</b>   | <b>3</b>   | <b>3</b>   | <b>0</b>   |
| BUS HCM S3 21 5 | <b>3</b>   | <b>3</b>   | <b>3</b>   | <b>3</b>   | <b>3</b>   |

Module 1 : 10Hrs.

Organizational Behaviour: Concept and functioning Need of OB, the contributions made by major behavioural science disciplines to OB, major challenges and opportunities for managers to use OB concepts

Module 2: 10Hrs.

Introduction to Individual: Interpersonal Styles, Personality and Personal Effectiveness, Values and Attitude, Perception, and Motivation, Coping with Frustration and Stress

Module 3: 8Hrs.

Groups & Teams: Team building, Group behaviour and group dynamics, Role and role effectiveness, Leadership Styles

Module 4: 7Hrs.

Organizational Climate and Culture, Types of Conflict in Organisation & Conflict Management

Module 5: 10Hrs.

Organization Learning & Development: Relevance of Learning, Training vs Development, OD & OD Interventions

References:

1. Pareek, U., Organizational Behavior Process, Rawat Publications, Jaipur, 1998.
2. Pareek, U., Training Instruments for HRD, Tata McGraw Hill, 1997.
3. Hersey, P and Blanchard, K, Management of Organizational Behavior, Prentice Hall of India, 1996.
4. Hall Richard, H, Organizations: Structures, Processes, and Outcomes, Prentice Hall of India, 1992.
5. Chandra Shiv (edited), Readings in Organization Behavior, Community Health and Administrative Procedures, SIHFW, Jaipur, Rajasthan, 1997.

**45 Hours**

**3 credits**

**Introduction:**

The course on Research Methodology for Healthcare Management equips students with essential skills and knowledge to conduct systematic research in healthcare. Students will explore various research principles, methodologies, and ethical considerations relevant to the healthcare field. This course aims to empower students with the skills to evaluate research critically, develop a research project, conduct data analysis, and prepare a comprehensive project report. Through hands-on experience with data collection and analysis, students will gain the foundational understanding necessary to pursue and support evidence-based management practices in healthcare.

**Course Objectives:**

- The students will be able to understand Research Principles
- The students will be able to critically evaluate research principles
- The students will be able to understand ethical research considerations
- The students will be able to perform, analyze and prepare a project report.

**Course Outcomes:**

By the end of the Course, the student will be able to...

| Course Outcome Number | Blooms Taxonomy Levels (BTL) | Course Outcome  |
|-----------------------|------------------------------|---|
| BUS HCM S3 22 1       | L1,2                         | Define and describe the foundational concepts of research and various types of research in the social sciences and healthcare.                          |
| BUS HCM S3 22 2       | L3, 4                        | Identify and critically evaluate different stages of the research process, including the formulation of research questions, hypotheses, and objectives. |
| BUS HCM S3 22 3       | L 3,5                        | Develop a structured research design and sampling plan, including the selection of appropriate sampling methods and determination of sample size.       |
| BUS HCM S3 22 4       | L3,4,5                       | Execute data collection and analysis using suitable tools and techniques, and interpret data findings with accuracy                                     |
| BUS HCM S3 22 5       | L5,6                         | Prepare and present a research report, applying APA style and integrating all research stages effectively in a structured document.                     |

**CO - PO Mapping**

|                 | PO1 | PO2 | PO3 | PO4 | PO5 |
|-----------------|-----|-----|-----|-----|-----|
| BUS HCM S3 22 1 | 3   | 3   | 2   | 0   | 0   |
| BUS HCM S3 22 2 | 3   | 3   | 3   | 2   | 0   |
| BUS HCM S3 22 3 | 3   | 3   | 3   | 3   | 0   |
| BUS HCM S3 22 4 | 3   | 3   | 3   | 3   | 2   |

|                 |   |   |   |   |   |
|-----------------|---|---|---|---|---|
| BUS HCM S3 22 5 | 3 | 3 | 3 | 3 | 3 |
|-----------------|---|---|---|---|---|

#### Module I : 5Hrs.

Meaning of Research - nature and characteristics of Social Science research – Objectives - applications of research in business decision making - research methods and research methodology - types of Social Science research - descriptive and analytical Research - applied research and pure/fundamental research - quantitative and qualitative research - conceptual and empirical research-explorative and experimental research - evaluation research - historical research - survey research - case study.

#### Module II : 12Hrs.

Different stages of Research process - Selection of a Research Topic - Review of Literature – Sources of literature and importance of literature review- Identification of the Research Problem - Identification of the Research Objectives - Formulation of Hypotheses – Sources of hypotheses and Types of Hypotheses - Testing of Hypotheses - Type I and Type II errors - Identification and measurement of Variables - types of variables –measurement of variables.

#### Module III :10Hrs.

Preparing the Research Design- Need and contents of research design- Components and Types - Population survey and sample study- types of sampling - random sampling and non - random sampling - different methods of random and non - random sampling-sample size decisions-factors influencing sample size decision-optimum sample size - pre-test and pilot study

#### Module IV : 12Hrs.

Data Collection and analysis - Primary and Secondary data - Methods and tools - observation and survey methods - tools of data collection - questionnaire and interview schedule - Questionnaire preparation-attitude measurement - scaling - scaling techniques - different types of scales - validity and reliability of scale - scale values - Processing and analysis of Data - Steps - Questionnaire checking - Identifying the types of data - editing- coding - tabulation- Graphical representation - data cleaning - Use of statistical software packages for data analysis-interpretation of data.

#### Module V :6Hrs.

Report Writing - meaning and functions of research reports - types of research reports - Technical Report - Interim Report - Summary Report-Research abstract- Research Article - Steps involved in report writing - substance of reports - Footnotes and Bibliography- references - executive summary - APA style - format or layout of reports - content of the report- presentation of reports.

#### References:

1. Bennet Roger: Management research
2. Claire and Morton: Research methods in social relations.
3. Ajai S. Gaur and Sanjaya S. Gaur: Statistical methods for practice and Research, Sage Publishers.

4. Luck and Rubin: Marketing research
5. Neil J Salkind: Exploring research
6. CR Kothari, Research Methods and Techniques, New Age International, New Delhi
7. Handbook of Research on Healthcare Administration and Management Wickramasinghe, Nilmin, IGI Global 2016
8. Hilla Brink, Christa Van der Wal :Fundamentals of Research Methodology for Health Care, Juta 2006
9. R. C. Goya: Research Methodology for Health Professionals, Jaypee Brothers Medical Publishers Pvt. Limited 2010

**UNIVERSITY OF CALICUT**  
**MASTER OF BUSINESS ADMINISTRATION (HEALTH CARE MANAGEMENT)**  
**BUS HCM S3 23 SAFE MEDICAL PRACTICES AND MANAGED CARE**

**45 HOURS**

**3 Credits**

**Introduction:**

**The Clinical Practices and Managed Care course introduces students to foundational principles and practices for ensuring patient safety, occupational health, and effective healthcare management. The course explores patient safety goals, occupational hazards, the role of major international health organizations, and the importance of medical audits in hospital settings. Through this course, students will develop the competencies required to manage healthcare processes and analyze critical health issues, gaining a holistic understanding of the factors that influence healthcare quality and patient outcomes.**

**Course Objectives:**

- To understand and implement patient safety policies in healthcare facilities.
- To acquire knowledge about occupational health standards and hygiene in healthcare.
- To gain insight into the functions and impact of international health organizations.
- To understand the significance of medical audits and their application in hospitals.

**Course Outcomes:**

By the end of the Course, the student will be able to...

| Course Outcome Number | Blooms Taxonomy Levels (BTL) | Course Outcome  |
|-----------------------|------------------------------|---|
| BUS HCM S3 23 1       | L1                           | Define fundamental patient safety principles and International Patient Safety Goals (IPSGs).                        |
| BUS HCM S3 23 2       | L2                           | Explain occupational health risks and safety standards relevant to hospital settings.                               |
| BUS HCM S3 23 3       | L3                           | Apply knowledge of the objectives and contributions of international health organizations in healthcare management. |

|                 |    |  |
|-----------------|----|--|
| BUS HCM S3 23 4 | L4 | Analyze the process and necessity of conducting medical audits in hospitals.   |
| BUS HCM S3 23 5 | L5 | Evaluate social determinants of health and propose solutions for global health challenges, such as infectious diseases and malnutrition. |

### CO - PO Mapping

|                 | PO1 | PO2 | PO3 | PO4 | PO5 |
|-----------------|-----|-----|-----|-----|-----|
| BUS HCM S3 23 1 | 3   | 0   | 0   | 0   | 0   |
| BUS HCM S3 23 2 | 3   | 2   | 0   | 0   | 0   |
| BUS HCM S3 23 3 | 3   | 2   | 2   | 0   | 0   |
| BUS HCM S3 23 4 | 3   | 3   | 3   | 0   | 0   |
| BUS HCM S3 23 5 | 3   | 3   | 3   | 2   | 3   |

#### Module 1 :5Hrs.

PATIENT SAFETY : Introduction – IPSGs (International Patient Safety Goals), Patient Identification – Importance, Principles, Barriers, Solutions, Effective communication – Importance, Principles, Barriers, Solutions, Medication Management – Importance, Principles, Barriers, Solutions, Safe surgery – Importance, Principles, Barriers, Solutions

#### Module 2 :12Hrs.

Occupational health, Safety and Hygiene : Understanding occupational health, safety and hygiene, Understanding Occupational Hazards and different types of Occupation Hazards, Occupational health and the vulnerable (Children, Women, workers of unorganized sector) Ergonomics, Hospital codes.

#### Module 3 : 12Hrs.

Objectives and organization of important agencies and their role in health care activities. WHO, UNICEF, FAO, ILO, Indian Red Cross society, UNFPA, World Bank, Asia Development Bank, Ford Foundation, CARE, Rockefeller Foundation. Family welfare and planning, various committees. Need and packages under RCH Programme.

#### Module 4 :10Hrs.

Medical Audit - Need for Medical Audit, Definition and Measures of Medical Audit, Pre-requisites for Conducting a Medical Audit, Development of Medical Audit for Local Organization, Structuring Data Base for Medical Audit (i. Equipment Audit, ii. Intensive Care Unit Audit, ii. Cost Audit for Operation Theatre, IV. Clinical Audit)

#### Module 5 : 6Hrs.

Analysing Health: Determinants - Poverty/access to healthcare - Maternal weight - Oral health - Effects on child health and development - Prenatal health - Childbirth -Postpartum period - Long-term effects for the mother - Global Situation - Proposed solutions Diseases: HIV/AIDS — Tuberculosis — Malaria — Malnutrition — Global Mental Health

References:

1. Park, K., Park's Textbook of Preventive and Social Medicine, M/s Banarsidas Bhanot Publishers, Jabalpur
2. Walshe, K., Smith, J., Healthcare Management, Tata McGraw-Hill Education Private Limited, New Delhi, 2010
3. McLaughlin and Kalunzny (1994): Continuous Quality Improvement in Health Care: Theory, Implementation and Applications, An Aspen publication

UNIVERSITY OF CALICUT  
MASTER OF BUSINESS ADMINISTRATION (HEALTH CARE MANAGEMENT)  
**BUS HCM S3 24 MINOR PROJECT (21days in a Hospital)**

3 credits

Course objectives:

- To give practical exposure to the students about various aspects of health care management.
- Identification of project problem.
- Preparation of proposal and class room presentation of the proposal
- Field work
- Internal presentation of the project.
- Final submission of the project report

## SEMESTER 4

UNIVERSITY OF CALICUT  
MASTER OF BUSINESS ADMINISTRATION (HEALTH CARE MANAGEMENT)  
**BUS HCM S4 25 SERVICE QUALITY MANAGEMENT IN HEALTH CARE**

45 Hours

3 credits

**Introduction**

**The course "Service Quality Management in Healthcare" is designed to provide students with a comprehensive understanding of service quality principles and practices tailored to the healthcare sector. With an increasing demand for high-quality patient care, healthcare organizations face unique challenges in delivering consistent and effective services. This course covers service characteristics, consumer behavior, quality models, and strategies to manage and market healthcare services efficiently. It aims to equip students with the necessary skills to measure, analyze, and improve**

Course Objectives:

- To develop insights into emerging trends in the service sector with a specific focus on healthcare.
- To gain practical knowledge of marketing and managing service quality in healthcare.
- To understand and apply service quality frameworks to improve healthcare service delivery.
- To explore standards and accreditation in healthcare services, such as NABH and JCI.

### Course Outcomes:

By the end of the Course, the student will be able to...

| Course Outcome Number | Blooms Taxonomy Levels (BTL) | Course Outcome  |
|-----------------------|------------------------------|---|
| BUS HCM S4 25 1       | L1                           | Define the characteristics and classification of services in healthcare.                      |
| BUS HCM S4 25 2       | L2                           | Discuss service encounters and consumer behavior in the healthcare context.                   |
| BUS HCM S4 25 3       | L3                           | Apply quality management tools and models to assess healthcare service quality.               |
| BUS HCM S4 25 4       | L4                           | Analyze the impact of service strategy and customer satisfaction on healthcare outcomes.      |
| BUS HCM S4 25 5       | L5                           | Evaluate healthcare service standards and accreditation criteria, such as NABH, JCI, and ISO. |

### CO - PO Mapping

|                 | PO1 | PO2 | PO3 | PO4 | PO5 |
|-----------------|-----|-----|-----|-----|-----|
| BUS HCM S4 25 1 | 3   | 0   | 0   | 0   | 0   |
| BUS HCM S4 25 2 | 3   | 2   | 0   | 0   | 0   |
| BUS HCM S4 25 3 | 3   | 3   | 3   | 0   | 0   |
| BUS HCM S4 25 4 | 3   | 3   | 3   | 2   | 0   |
| BUS HCM S4 25 5 | 3   | 3   | 3   | 2   | 3   |

Module I :7Hrs.

Emergence of Service Economy: Nature of services, Unique characteristics of services; Goods and services marketing; Classification of services; origin and growth of service marketing, service marketing mix.

Module II :10Hrs.

The service encounters; Service consumer behavior; Service Management trinity; Service Experience; Service Quality. Service failure and recovery; Service blue printing.

Module III :10Hrs.

Service vision and service strategy ; Quality issues and quality models of service management; Quality function deployment; Customer defined service standards; services cape; customer

satisfaction; customer satisfaction surveys; integrated marketing of services.

Module IV:10Hrs.

Service Project Development, Demand and supply management for services; Advertising, branding and packaging of services; Employees roles in service delivery. NABH accreditation, JCI, ISO

Module V :8Hrs.

Marketing of various services: Marketing of financial services; Marketing of Health Care Services; Marketing of Hospital Services; Marketing of Tourism services; Marketing of educational services; Marketing of legal and professional services.

References:

1. Zeithami, Valarie A and Bitner, Mary JO: Services Marketing, Tata McGraw Hill, New Delhi 2004
2. Woodruffe, Helen: Services Marketing, Macmillan India, New Delhi
3. Lovelock, Christopher, H: Managing services:Marketing operations and Human resources, Prentice Hall of India, New Jersey
4. McDonald, Malcm and Payne: A marketing planning for services, Heinemann, Butterworth 1996

UNIVERSITY OF CALICUT  
MASTER OF BUSINESS ADMINISTRATION (HEALTH CARE MANAGEMENT)  
**BUS HCM S4 26 BIO-MEDICAL ENGINEERING**

Time: 45 hrs

3 credits

### **Introduction**

**The "Biomedical Engineering" course offers students a comprehensive understanding of the application of technology in healthcare. This course covers the usage of clinical and biomedical equipment, Hospital Information Systems (HIS), telemedicine, and biomedical documentation. It equips students with the necessary knowledge to understand and work with the technologies used in hospitals, particularly in areas like ICUs, operation theatres, cardiology, radiology, and laboratories. The course also focuses on the integration of clinical systems, non-clinical documentation, and innovative healthcare technology applications**

Course objectives:

- To understand the application of biomedical technologies and equipment in various hospital settings (e.g., ICUs, operation theatres, cardiology, radiology, labs).
- To learn about biomedical information systems and how they help in managing clinical and non-clinical documentation.



- To gain knowledge of the principles and practical applications of telemedicine in healthcare.
- To understand the integration of clinical data through Hospital Information Systems (HIS) and evaluate the comparative features of biomedical equipment and HIS systems.

### Course Outcomes:

By the end of the Course, the student will be able to...

| Course Outcome Number | Blooms Taxonomy Levels (BTL) | Course Outcome  |
|-----------------------|------------------------------|---|
| BUS HCM S4 26 1       | L1                           | Identify the types and functions of biomedical equipment used in various healthcare settings such as ICUs, radiology, and operation theatres.                           |
| BUS HCM S4 26 2       | L2                           | Explain the technical principles and working of biomedical equipment (e.g., X-ray, CT, MRI) and their clinical applications   |
| BUS HCM S4 26 3       | L3                           | Demonstrate the application of telemedicine concepts in clinical and non-clinical settings, understanding its practical benefits for patients and healthcare providers. |
| BUS HCM S4 26 4       | L4                           | Analyze the integration of Hospital Information Systems (HIS) and evaluate their impact on clinical and non-clinical functions in a hospital setting.                   |
| BUS HCM S4 26 5       | L5                           | Evaluate and compare different biomedical equipment and HIS suppliers based on cost, features, and benefits to healthcare providers, patients, and insurance companies. |

### CO - PO Mapping

|                 | PO1 | PO2 | PO3 | PO4 | PO5 |
|-----------------|-----|-----|-----|-----|-----|
| BUS HCM S4 26 1 | 3   | 2   | 0   | 0   | 0   |
| BUS HCM S4 26 2 | 3   | 2   | 2   | 0   | 0   |
| BUS HCM S4 26 3 | 3   | 2   | 3   | 2   | 0   |
| BUS HCM S4 26 4 | 3   | 3   | 3   | 2   | 2   |
| BUS HCM S4 26 5 | 3   | 3   | 3   | 3   | 3   |

Module 1 :8Hrs.

Biomedical and technology equipments in hospitals- ICUs, Operation theatres, cardiology, Radiology, health Check, Labs. .Hospital Information systems, Telemedicine.

Module II :10Hrs.

Biomedical equipments- basic application/ usage, technical principle - radiology X ray, CT, US, MR.

Module III :10Hrs.

Functioning of telemedicine, Application and usage; The benefits to patients , Doctors and hospital on both clinical and non clinical aspects

Module IV :10Hrs.

Hospital Information Systems. Integration of clinical, patients details and accounting and finance systems. Benefits to patients, hospital and payers like Insurance companies

Module V : 7Hrs.

Listing various brands suppliers of higher value biomedical equipments and HIS systems, A comparative study of cost and features (to cover the range of radiology, Nuclear medicine, and cardiology equipments). Familiarizing with few supplier/ brand names in HIS systems and Features

References:

1. Khandpur, Hand book of Bio medical Instrumentation,Tata Mc Graw-Hill Education ,2003
2. Toonika Rinken,State of the Art in Biosensors - Environmental and Medical Applications
3. Richard Aston,Medical Instrumentation for Nurses and Allied Health-Care Professionals Jones & Bartlett Publishers .

UNIVERSITY OF CALICUT  
MASTER OF BUSINESS ADMINISTRATION (HEALTH CARE MANAGEMENT)  
**BUS HCM S4 27 MEDICAL RECORDS MANAGEMENT**

Time: 45 hrs

**3 credits**

**Introduction**

**The "Medical Records Management" course is designed to provide students with an in-depth understanding of the roles, procedures, and importance of medical records in healthcare settings. It addresses both the foundational aspects and current standards in managing medical records, covering areas such as departmental organization, legal requirements, and the transition to electronic medical record systems. By mastering these concepts, students will be equipped to handle the complexities of medical records management in hospitals and improve healthcare delivery quality**

Course Objectives:

- To understand the foundational purpose, importance, and development of medical records in healthcare.
- To gain insight into the operations, policies, and standards of a Medical Records Department.
- To learn and apply methods for maintaining and retrieving both physical and electronic medical records.
- To understand and analyze legal aspects and quality control processes in medical records management.

**Course Outcomes:**

By the end of the Course, the student will be able to...

| Course Outcome Number | Blooms Taxonomy Levels (BTL) | Course Outcome   |
|-----------------------|------------------------------|--|
| BUS HCM S4 27 1       | L1                           | Recall the purpose, development, and significance of medical records in healthcare settings.             |
| BUS HCM S4 27 2       | L2                           | Describe the structure, objectives, standards, and policies of a medical records department.             |
| BUS HCM S4 27 3       | L3                           | Execute tasks like assembling, filing, coding, and retrieving medical records accurately.                |
| BUS HCM S4 27 4       | L4                           | Examine the legal requirements related to medical records management, including record movement control. |
| BUS HCM S4 27 5       | L5                           | Assess quality control practices in computerized medical record systems and conduct medical audits.      |

#### CO - PO Mapping

|                 | PO1 | PO2 | PO3 | PO4 | PO5 |
|-----------------|-----|-----|-----|-----|-----|
| BUS HCM S4 27 1 | 3   | 0   | 0   | 0   | 0   |
| BUS HCM S4 27 2 | 3   | 2   | 0   | 0   | 0   |
| BUS HCM S4 27 3 | 3   | 3   | 2   | 0   | 0   |
| BUS HCM S4 27 4 | 3   | 2   | 2   | 2   | 0   |
| BUS HCM S4 27 5 | 3   | 3   | 2   | 2   | 3   |

Module I :8Hrs.

The History and significance of Medical records: History –meaning, purpose, development and content-format, uses, role and importance.

Module II :10Hrs.

Medical Record department –objective- standards and policies. Assembling-filing coding-indexing deficiency-checking retrieval-Retention and storage.

Module III :10Hrs.

Other services-Inpatient, outpatient, control of movement of records, statistics. Legal aspects of medical records.

Module IV :10Hrs.

Medical forms and registers standardization, availability, design and control, basics forms, hospital administrative records, clinical records.

Module V :7Hrs.

Computerization /EMMR of medical records quality control of medical records, administrative

application, active, inactive records. Qualitative and quantitative analysis, Medical audit,-standards- responsibility-infection control documentation-general instructions.

References:

1. Huffman Edna K. , Medical Record Management, Physicians' Record Company,1990.
2. GD Mogli, Medical Records Organisation and Management, Jaypee- The health ppublisher,2006

UNIVERSITY OF CALICUT  
MASTER OF BUSINESS ADMINISTRATION (HEALTH CARE MANAGEMENT)  
**BUS HCM S4 28 HOSPITAL DISASTER MANAGEMENT**

45Hours

3 credits

**Introduction**

**The "Hospital Disaster Management" course is designed to equip students with essential knowledge and skills to manage disaster scenarios within a hospital setting effectively. With the healthcare industry's increasing vulnerability to various threats—such as fires, radiological hazards, infections, and natural disasters—hospital administrators must be well-prepared to ensure safety and continuity of care. This course provides an in-depth understanding of security management, infection control, fire safety, radiation hazards, and disaster preparedness. Students will learn to develop,implement, and manage hospital disaster plans, ensuring the highest standards of patient and staff safety.**

Course Objective:

- To enable students to identify and assess safety risks and vulnerabilities in hospital settings.
- To familiarize hospital administrators with disaster management strategies, including effective security, infection, fire, and radiation control.
- To prepare students to establish proactive disaster preparedness plans for hospitals to minimize the impact of potential disasters.

**Course Outcomes:**

By the end of the Course, the student will be able to...

| Course Outcome Number | Blooms Taxonomy Levels (BTL) | Course Outcome   |
|-----------------------|------------------------------|--|
| BUS HCM S4 28 1       | L1                           | Identify security threats and describe the components of hospital security systems.                                |
| BUS HCM S4 28 2       | L2                           | Explain infection control measures and the roles of departments in preventing hospital-acquired infections (HAIs). |

|                 |    |   |
|-----------------|----|---|
| BUS HCM S4 28 3 | L3 | Apply fire safety principles and assess fire risk management in hospital facilities.                              |
| BUS HCM S4 28 4 | L4 | Analyze radiation safety requirements and develop safety protocols for radiology and nuclear medicine departments |
| BUS HCM S4 28 5 | L5 | Evaluate hospital disaster management plans and coordinate effective response strategies and drills.              |

### CO - PO Mapping

|                 | PO1 | PO2 | PO3 | PO4 | PO5 |
|-----------------|-----|-----|-----|-----|-----|
| BUS HCM S4 28 1 | 3   | 0   | 0   | 0   | 0   |
| BUS HCM S4 28 2 | 3   | 2   | 0   | 0   | 0   |
| BUS HCM S4 28 3 | 3   | 2   | 2   | 0   | 0   |
| BUS HCM S4 28 4 | 3   | 2   | 2   | 2   | 0   |
| BUS HCM S4 28 5 | 3   | 3   | 2   | 2   | 3   |

Module I : 12Hrs.

Security Organization and Management : Security threats and vulnerabilities of hospitals – Threatgroups

- Security sensitive areas – Strategic security system – Functions of hospital security department – non – Traditional “ service “ Functions – Security Organization and physical security measures – The Staff compliment – Perimeter Protection System – Implementing Physical controls – Access Control concepts
- Definition – means and Components – Need for Security Technology Plan – Computer and information security – Selection and management of Departmental security staff /contract security agency and security training – system choice – verification of security personnel – security staff discipline – effective security management in hospitals – central security control room – patrols and post procedures / techniques – Control of visitors / OPD Patients / Attendants – Standing instructions for security of cash – Security budgeting – security committee – Periodic security audit and updating of security procedures – bomb Threats / Response

Module II : 8Hrs.

Hospital Acquired Infection ( HAI ): Objectives – Control and prevention – House keeping – Dietary services – Linen and laundry – Central sterile supply department ( CSSD ) – Security – Engineering aspects – Nursing care - Waste Disposal – Anti biotic policy – Hospital infection control committee – composition – Role and Functions – Surveillance – High risk procedures – Training and education – Universal precautions for health care workers.

Module III : 8Hrs.

Fire Hazards” Elements of fire – Fire Hazard Triangle – Causes of hospital fires – Fire Protection – Structure Planning and Design Considerations – Buildings: Harness communication zone – Building services – Central air conditioning facilities – Electric installation – special hazards – Fixed installation – Hazards associated with furnishing material, curtains, upholstery,

dresses ,bed and bedding materials – water supply – fire points and escape routes – fuel store – Manual call points – Means of escape and evacuation – Risk evaluation .

Module IV : 8Hrs.

Radiation Hazards: Introduction – Biological effects of radiation – diagnostic imaging – Radiation protection and safety – Radiation safety monitoring – Principle in the lay out of a diagnostic X ray room – Video imaging modalities – Contrast media – laser imaging – magnetic resonance imaging – planning constraints – preventive measures against magnetic field hazards – Nuclear medicine department – Facility planning – Radiation protection aspects – Radio active waste collection and disposal – procedure for obtaining clearance.

Module V :9Hrs.

Disaster Management: Objectives – basic concepts – Disaster classification – Disaster process – Spectrum of disaster management – special characteristics – Principles of disaster planning – Disaster and health problems – Organization for medical relief – Principles of mass casualty management – objectives of and need for hospital disaster plan – Disaster committee – Organization – Role and Responsibilities – Organizing disaster facilities – Disaster response – alert and recall – Deployment – Disaster administration – Disaster manual – Disaster drill.

References:

1. Shailendra K Singh: Safety and risk management , Mittal Publishers
2. J.H.Diwan : Safety, Security and risk management, APH
3. Gerry FitzGerald, Mike Tarrant, Marie Fredriksen:Disaster Health Management: A Primer for Students ,Taylor & Francis2016
4. Emily Ying Yang Chan, Holly Ching Yu Lam: Health-Related Emergency Disaster Risk Management (Health-EDRM), Mdpi AG 2020

UNIVERSITY OF CALICUT  
MASTER OF BUSINESS ADMINISTRATION (HEALTH CARE MANAGEMENT)  
**BUS HCM S4 29 MAJOR PROJECT & COMPREHENSIVE VIVA VOCE OF 6 Credits**

UNIVERSITY OF CALICUT  
MASTER OF BUSINESS ADMINISTRATION (HEALTH CARE MANAGEMENT)  
**BUS HCM S4 30 PG Management Course of 3 credits of NPTEL/ Online Courses approved**

by the University of Calicut

| MODEL QUESTION PAPER   |  |                   |
|--|--|-------------------|
| UNIVERSITY OF CALICUT  |  |                   |
| FIRST SEMESTER MBA HCM DEGREE EXAMINATION, MONTH, YEAR                             |  |                   |
| Course Code: BUS HCM S1 01   |  |                   |
| Course Name: BUSINESS AND HEALTH CARE COMMUNICATION                                |  |                   |
| Max. Marks: 60   |  | Duration: 3 Hours |
| PART A   |  |                   |
|  | <i>Answer all questions, each carries 2 marks.</i>   | Marks             |
| 1  | Explain the term Business Communication.   | (2)               |
| 2  | What is meant by Resume?   | (2)               |
| 3  | Explain the term Kinesics.   | (2)               |
| 4  | What is SWOT analysis?   | (2)               |
| 5  | What is meant by Netiquettes?  | (2)               |
| PART B   |  |                   |
| <i>Answer any FOUR questions from this section. Each question carries 4 marks.</i> |  |                   |
| 6  | Explain the process of communication.  | (4)               |
| 7  | State and explain the characteristics of a good Business Letter.                               | (4)               |
| 8  | Define Body Language. Explain its role in Health care communication.                           | (4)               |
| 9  | Explain the skills required for a health care professional while conducting interviews.        | (4)               |
| 10   | How do you deliver an effective public speech in a health care unit?                           | (4)               |
| 11   | What is Presentation? State the major presentation skills required for a medical professional. | (4)               |
| PART C   |  |                   |
| <i>Answer any THREE questions from this section. Each question carries 8 marks</i> |  |                   |
| 12   | State and explain different types of communication in a health care organization.              | (8)               |
| 13   | Write an application letter for the post of Operations Manager in a hospital in Kochi.         | (8)               |
| 14   | Describe the factors affecting effective listening.  | (8)               |
| 15   | Explain the methods of developing positive personal attitude among health care employees.      | (8)               |

|   |  |      |
|---|--|------|
| 16  | Write short notes on<br>(a) Press Release and Press Conference<br>(b) Agenda and Minutes   | (8)  |
| <b>PART D (Compulsory Question, 10 marks)</b> |  |      |
| 17  | Discuss the barriers to effective communication in a Health care Institution. Suggest suitable remedial measures to overcome the barriers. | (10) |

| <b>SCHEME OF VALUATION / ANSWER KEY</b><br>(Scheme of evaluation (marks in brackets) and answers of problems/key) |  |                   |
|---|--|-------------------|
| <b>UNIVERSITY OF CALICUT</b><br>FIRST SEMESTER MBA HCM DEGREE EXAMINATION, MONTH, YEAR                            |  |                   |
| <b>Course Code: BUS HCM S1 01</b>   |  |                   |
| <b>Course Name: BUSINESS AND HEALTH CARE COMMUNICATION</b>  |  |                   |
| Max. Marks: 60  |  | Duration: 3 Hours |
| <b>PART A</b>   |  |                   |
|   | <i>Answer all questions, each carries 2 marks.</i>   | Marks             |
| 1   | Provide the meaning and definition   | (2)               |
| 2   | Mention the concept in two or three sentences.   | (2)               |
| 3   | State the meaning of the term with an example.   | (2)               |
| 4   | Mention the four components of the analysis.   | (2)               |
| 5   | Mention the meaning with one or two examples.  | (2)               |
| <b>PART B</b>   |  |                   |
| <i>Answer any FOUR questions from this section. Each question carries 4 marks.</i>                                |  |                   |
| 6   | Mention briefly the process involved with a brief explanation  | (4)               |
| 7   | Mention the characteristics with a brief explanation.  | (4)               |
| 8   | State the meaning (1 marks)<br>and role (3 marks)  | (4)               |
| 9   | Mention the skills required for conducting interview. A brief explanation on all the points is expected. | (4)               |



|  |  |  |      |
|--|--|--|------|
| 10   |  | Briefly state the points for delivering an effective public speaking.                                  | (4)  |
| 11   |  | - Meaning ; 1 marks<br>- Skills with brief explanation: 3 marks  | (4)  |
| <b>PART C</b>  |  |  |      |
| <i>Answer any THREE questions from this section. Each question carries 8 marks</i> |  |  |      |
| 12   |  | Types of Communication with explanation  | (8)  |
| 13   |  | Application Letter with all the components is expected.  | (8)  |
| 14   |  | - Mention the different factors affecting with a brief explanation.                                    | (8)  |
| 15   |  | - State the methods of developing positive attitude with explanation.                                  | (8)  |
| 16   |  | - (a) State the meaning and difference :4 marks<br>- ( b) State the meaning of both the terms :4 marks | (8)  |
| <b>PART D (Compulsory Question, 10 marks)</b>                                      |  |  |      |
| 17.  |  | - State the Barriers to effective communication - 5 marks<br>- Remedial measures - 5 marks.            | (10) |

|   |   |                          |
|---|---|--------------------------|
| <b>MODEL QUESTION PAPER</b>   |   |                          |
| <b>UNIVERSITY OF CALICUT</b>  |   |                          |
| <b>FIRST SEMESTER MBA HCM DEGREE EXAMINATION, MONTH, YEAR</b>                     |   |                          |
| <b>Course Code: BUS S1 HCM 02</b>   |   |                          |
| <b>Course Name: PRINCIPLES OF HOSPITAL ADMINISTRATION &amp; HEALTHCARE ETHICS</b> |   |                          |
| <b>Max. Marks: 60</b>   |   | <b>Duration: 3 Hours</b> |
| <b>PART A</b>   |   |                          |
|   | <i>Answer all questions<br/>Each question carries 2 marks</i> | <b>Marks</b>             |
| 1   | Define Management.  | (2)                      |
| 2   | What is meant by Span of Control?                             | (2)                      |
| 3   | Write a brief note on MBO.                                    | (2)                      |
| 4   | Write the importance of medical ethics.                       | (2)                      |
| 5   | Discuss on the term Genetic Engineering.                      | (2)                      |

| PART B  |  |      |
|---|--|------|
| <i>Answer any FOUR questions from this section</i><br><i>Each question carries 4 marks</i>  |  |      |
| 6   | Discuss the steps involved in planning process.  | (4)  |
| 7   | Differentiate between Management and Administration.   | (4)  |
| 8   | Classify the types of hospitals.   | (4)  |
| 9   | Explain the ethical obligations in medical field.  | (4)  |
| 10  | Substantiate your views on medical negligence.   | (4)  |
| 11  | Enunciate the etiquette and code of ethics to be followed by medical professionals.  | (4)  |
| PART C  |  |      |
| <i>Answer any THREE questions from this section</i><br><i>Each question carries 8 marks</i> |  |      |
| 12  | Elucidate on the nature, scope and evolution of Management.  | (8)  |
| 13  | Outline a note on the governing board, executive board and advisory board in a hospital.   | (8)  |
| 14  | Discuss the roles and responsibilities of managers in hospitals.   | (8)  |
| 15  | Illustrate the importance of Declaration of Geneva & Tokyo with respect to medical ethics.   | (8)  |
| 16  | Elaborate on the terms - IVF, AID, SIFT, GIFT, ZIFT.   | (8)  |
| PART D (Compulsory Question, 10 marks)  |  |      |
| 17  | <p>XO Infotech Ltd. has developed a core package — Hospital Management System that addresses all major functional areas of Hospital. The development environment ensures that XO HMS has the portability and connectivity to run on virtually all standard hardware platforms, with stringent data security and easy recovery in case of a system failure. XO HMS provides the benefits of streamlined operations, enhanced administration and control, improved response to patient care, cost control, and increased profitability.</p> <p><b>Some of the Subsystem Modules in XO HMS:</b></p> <p><b>Reception:</b> The reception module handles various enquiries about the patient's admission and discharge details, bed census, and the patient's movements within the hospital. The system can also handle fixed-cost package deals for patients as well as Doctor Consultation and Scheduling, Doctor Consultancy Fees and Time Allocation.</p> <p><b>OPD, IPD Registration and Admission:</b> This module helps in registering information about patients and handling both IPD and OPD patient's query. A unique ID is generated for each patient after registration. This helps in implementing customer relationship management and also maintains medical history of the patient.</p> <p><b>Administration:</b> This module handles all the master entry details for the hospital requirement such as consultation detail such as doctor specialization, consultancy fee, and service charges.</p> <p><b>Security:</b> This module handles multi-level security of XO HMS so that every admission and transaction can be traced with the help of user ID.</p> <p><b>Pharmacy Store:</b> This module deals with all medical items. This module helps in maintaining Item Master Maintenance, Receipt of Drugs/consumables, issue handling of material return, generating retail bills, stock maintenance. It also helps in fulfilling the requirements of both IPD and OPD Pharmacy.</p> | (10) |

**Purchase:** This module helps in raising purchase orders, maintaining purchase details and other purchase related details.

**Phlebotomy:** This specific module caters in maintaining test requisitions, sample collection status and various procedures for collection of sample for the tests prescribed.

**Laboratory:** This module enables the maintenance of investigation requests by the patient and generation of test results for the various available services, such as clinical pathology, X-ray and ultrasound tests. Requests can be made from various points, including wards, billing, sample collection and the laboratory receiving point. The laboratory module is integrated with the in-patient/ outpatient registration, wards and billing modules.

**Emergency:** The development of this module keeps in mind the criticality of this department. Every care has been taken to ensure that minimum of time is taken to register the patient, so as to reduce the tension of the already stressed out relatives. Neither any detailed contact information of the patient is required nor any information about the payment type is solicited.

**OT Management:** This module deals with operation theatre activities such as equipment used detail, resource ordering, drug order, gynecology detail recording, laboratory order and reports transfer requisition, patient monitoring, blood request, new born baby detail and details of delivery.

**Minor Surgery:** This module is same in features as in OT management though the function is different. This module deals with the surgeries minor in nature, which does not require complete anesthesia.

**Blood Bank:** The blood bank module provides information on the collection and storage of blood, results of blood tests, cross-matching identifications, and transfusion reactions. It also enables the maintenance of donor mailing lists and donation ledgers. It would also provide online stock of blood available in three blood banks (GTB, LNJP and DDU

**Ward Management:** The ward management module takes care of medical equipment, doctor visit, vitals recording, patient case sheet, diet ordering, blood requisition, transfer intimation and discharge intimation etc. It also deals with the maintenance of the wards, inter- and intra-ward transfers.

**OPD and IPD Billing:** The billing module facilitates cashier and billing operations for different categories of patients and automatic posting of charges for different services such as lab tests, medicines supplied, consulting fees, food and beverage charges, etc. It enables credit party billing through integration with the financial accounting module.

**Intensive Care Unit (ICU):** This module caters to scheduling, maintaining ICU Record, drug orders, consultant details, specific blood requests etc.

**Food and Beverages:** This module facilitates collection of information regarding various diet routines of patients and identifies the resources required to satisfy diet orders. Depending on the diet orders and other requests from canteen, the kitchen order plan can be prepared to decide the menu for the day. Analysis of the consumption patterns helps in better and efficient management of the kitchen.

**Discharge Summary:** The module helps in generating patient's discharge summary, which includes patient's health at the time of discharge, medical history, various diagnosis and drug prescriptions, history of present illness and course in hospital. Buy vitamins and supplements

**Financial Accounting:** This module deals with cash/bank, receipts/payments, journal vouchers, etc. Various books of accounts, such as cashbook, bankbook and ledgers, can be generated and maintained using this module. It can also generate trial balance, balance sheet, and profit and loss statements.

**Marketing Module:** This module ensures that the hospital gets maximum exposure to

|  |  |
|--|--|
| <p>the general public and vice versa. This module keeps track of the enquiries made at the reception and follows the lead.</p> <p><b>Doctor's Module:</b> This module helps the doctors to keep a track of the entire medical history of a particular patient. Details such as the medicines prescribed, general medical records, previous consultations are all available to the doctor.</p> <p><b>HR Management:</b> Various MIS Reports are generated on the above modules for the smooth functioning of the hospital management so that checks can be made on any irregularity done in the hospital.</p> <p><b>Question:</b></p> <p>1. Develop a conceptual plan for implementation of the Hospital Management System.</p> |  |
|--|--|

| <b>SCHEME OF VALUATION / ANSWER KEY</b><br><b>(Scheme of evaluation (marks in brackets) and answers of problems/key)</b> |   |                          |
|--|---|--------------------------|
| <b>UNIVERSITY OF CALICUT</b><br><b>FIRST SEMESTER MBA HCM DEGREE EXAMINATION,</b><br><b>MONTH, YEAR</b>                  |   |                          |
| <b>Course Code: BUS S1 HCM 02</b>  |   |                          |
| <b>Course Name: PRINCIPLES OF HOSPITAL ADMINISTRATION &amp; HEALTHCARE ETHICS</b>  |   |                          |
| <b>Max. Marks: 60</b>  |   | <b>Duration: 3 Hours</b> |
| <b>PART A</b>  |   |                          |
|  | <i>Answer all questions, each carries 2 marks.</i>  | <b>Marks</b>             |
| 1  | - 1 mark for defining Management.<br>- 1 mark for naming any two management functions.                      | (2)                      |
| 2  | - 1 mark for defining span of control<br>- 1 mark for discussing on function of span of control.            | (2)                      |
| 3  | - 1 mark for defining MBO.<br>- 1 mark for explaining concept of MBO.                                       | (2)                      |
| 4  | - 1 mark for writing the meaning of medical ethics<br>- 1 mark for explaining its importance and need.      | (2)                      |
| 5  | - 1 mark for defining genetic engineering.<br>- 1 mark for discussing the mechanism of genetic engineering. | (2)                      |
| <b>PART B</b>  |   |                          |
| <i>Answer any FOUR questions from this section. Each question carries 4 marks.</i>                                       |   |                          |
| 6  | -Steps and process of planning -:4 marks  | (4)                      |
| 7  | - Management : 2 marks<br>- Administration: 2 marks   | (4)                      |
| 8  | - Different types of hospitals: 4 marks   | (4)                      |

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| 9  | - Explanation of the ethical obligations in medical field: 4 marks  | (4)  |
| 10   | - Explanation of medical negligence: 2 marks<br>- Examples of medical negligence: 2 marks   | (4)  |
| 11   | - Etiquette to be followed by medical professionals: 2 marks<br>- Code of ethics to be followed by medical professionals: 2 marks                                     | (4)  |
| <b>PART C</b>  |   |      |
| <i>Answer any THREE questions from this section. Each question carries 8 marks</i> |   |      |
| 12   | - Nature of Management. – 2 marks<br>- Scope of Management – 2 marks<br>- Evolution of Management – 4marks  | (8)  |
| 13   | - Structure of the governing board, executive board and advisory board – 4marks .<br>- Functions of the governing board, executive board and advisory board – 4 marks | (8)  |
| 14   | - Roles of managers in hospitals:4 marks<br>- Responsibilities of managers in hospitals:4 marks   | (8)  |
| 15   | - Explanation of Declaration of Geneva & Tokyo:4 marks<br>- Importance of Declaration of Geneva & Tokyo:4 marks   | (8)  |
| 16   | - IVF, AID, SIFT,.4 marks<br>- GIFT, ZIFT.:4 marks  | (8)  |
| <b>PART D</b>  |   |      |
| <i>Compulsory Questions- Case Study carries 10 marks</i>                           |   |      |
| 17   | - Detailed elaboration on how hospital management system can be implemented with various departments.   | (10) |

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| <b>MODEL QUESTION PAPER</b>                            |   |                   |
| <b>UNIVERSITY OF CALICUT</b>                           |   |                   |
| FIRST SEMESTER MBA HCM DEGREE EXAMINATION, MONTH, YEAR |   |                   |
| <b>Course Code: BUS-S1-HCM 03</b>                      |   |                   |
| <b>Course Name: BUSINESS AND MEDICAL LAWS</b>          |   |                   |
| Max. Marks: 60   |   | Duration: 3 Hours |
| <b>PART A</b>  |   |                   |
|  | <i>Answer all questions, each carries 2 marks.</i>    | Marks             |
| 1  | Define the term Consideration.                        | (2)               |
| 2  | Distinguish between condition and warranty.           | (2)               |
| 3  | What is meant by incorporation of a company?          | (2)               |
| 4  | State the objectives of Hospital Protection Act 2023. | (2)               |
| 5  | State the concept of euthanasia.                      | (2)               |
| <b>PART B</b>  |   |                   |

| <b><i>Answer any FOUR questions from this section. Each question carries 4 marks.</i></b> |  |      |
|---|--|------|
| 6   | Define the term Offer. What are the essentials of a valid Offer.   | (4)  |
| 7   | Explain the term Quasi contracts.  | (4)  |
| 8   | State the salient features of Right to Information Act 2005.   | (4)  |
| 9   | What are the key provisions of Hospital Protection Act 2023 regarding violence prevention and property protection?       | (4)  |
| 10  | Write short notes on Refusal of Medical Treatment.   | (4)  |
| 11  | Briefly explain the term Physician Assisted Suicide.   | (4)  |
| <b>PART C</b>   |  |      |
| <b><i>Answer any THREE questions from this section. Each question carries 8 marks</i></b> |  |      |
| 12  | What is meant by breach of contract? State the remedies for breach of Contract.  | (8)  |
| 13  | Discuss the rights of an unpaid seller.  | (8)  |
| 14  | Discuss briefly the rights of a consumer under Consumer protection Act 1986.   | (8)  |
| 15  | State the role of Kerala Public Health Act 2023 in promoting public health disease control and environmental sanitation. | (8)  |
| 16  | Write an essay on Human rights and Medical Practice.   | (8)  |
| <b><i>PART D (Compulsory Question, 10 marks)</i></b>                                      |  |      |
| 17  | Define a Contract. Discuss in detail the essentials of a valid contract.   | (10) |

| <b>SCHEME OF VALUATION / ANSWER KEY</b><br>(Scheme of evaluation (marks in brackets) and answers of problems/key) |   |                   |
|---|---|-------------------|
| <b>UNIVERSITY OF CALICUT</b>  |   |                   |
| <b>FIRST SEMESTER MBA HCM DEGREE EXAMINATION, MONTH, YEAR</b>   |   |                   |
| <b>Course Code: BUS-S1-HCM 03</b>   |   |                   |
| <b>Course Name: BUSINESS AND MEDICAL LAWS</b>   |   |                   |
| Max. Marks: 60  |   | Duration: 3 Hours |
| <b>PART A</b>   |   |                   |
|   | <b><i>Answer all questions, each carries 2 marks.</i></b>               | <b>Marks</b>      |
| 1   | State the definition  | (2)               |
| 2   | Mention the difference between the two-at least two points are expected | (2)               |
| 3   | State the meaning of the term.  | (2)               |
| 4   | Mention at least three main objectives of the act.                      | (2)               |
| 5   | State the concept in two sentences.                                     | (2)               |

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| <b>PART B</b>  |  |  |      |
| <i>Answer any FOUR questions from this section. Each question carries 4 marks.</i> |  |  |      |
| 6  |  | Meaning: 1 marks<br>Essentials with brief explanation: 3 marks     | (4)  |
| 7  |  | State the concept in a paragraph: 4 marks                          | (4)  |
| 8  |  | Mention the features with explanation: 4 marks                     | (4)  |
| 9  |  | Mention key provisions of Hospital Protection Act 2023             | (4)  |
| 10   |  | A Brief of the topic has to be presented in a paragraph.           | (4)  |
| 11   |  | State the term with a brief explanation.                           | (4)  |
| <b>PART C</b>  |  |  |      |
| <i>Answer any THREE questions from this section. Each question carries 8 marks</i> |  |  |      |
| 12   |  | Meaning : 2 marks<br>Remedies: 6 marks                             | (8)  |
| 13   |  | Mention the rights with brief explanation                          | (8)  |
| 14   |  | State the points with explanation                                  | (8)  |
| 15   |  | State the role incorporating the relevant points with explanation. | (8)  |
| 16   |  | State the concepts a) 4 marks b) 4 marks                           | (8)  |
| <b>PART D (Compulsory Question, 10 marks)</b>                                      |  |  |      |
| 17   |  | Meaning: 2 marks<br>Essentials with explanation : 8 marks          | (10) |

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| <b>MODEL QUESTION PAPER</b>                            |   |                   |
| <b>UNIVERSITY OF CALICUT</b>                           |   |                   |
| FIRST SEMESTER MBA HCM DEGREE EXAMINATION, MONTH, YEAR |   |                   |
| <b>Course Code: BUS-S1-HCM 04</b>                      |   |                   |
| <b>Course Name: HEALTH CARE ENVIRONMENT</b>            |   |                   |
| Max. Marks: 60   |   | Duration: 3 Hours |
| <b>PART A</b>  |   |                   |
|  | <i>Answer all questions, each carries 2 marks.</i>  | Marks             |
| 1  | Define Population Policy.                           | (2)               |
| 2  | Name two functions of State Medical Council Bodies. | (2)               |
| 3  | What is Urban Medical Care?                         | (2)               |

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| 4  | What is Primary care?   | (2)  |
| 5  | What is Epidemiology?   | (2)  |
| <b>PART B</b>  |   |      |
| <i>Answer any FOUR questions from this section. Each question carries 4 marks.</i> |   |      |
| 6  | Distinguish between Curative care and Preventive care.                                  | (4)  |
| 7  | Explain the salient features of Medical Education Policy.                               | (4)  |
| 8  | What are the functions of Pediatric Services?   | (4)  |
| 9  | What are the principles of Epidemiology?  | (4)  |
| 10   | Explain the conceptual framework of healthcare system.                                  | (4)  |
| 11   | Briefly explain the role of MCI in health regulation.                                   | (4)  |
| <b>PART C</b>  |   |      |
| <i>Answer any THREE questions from this section. Each question carries 8 marks</i> |   |      |
| 12   | Classify Hospitals and Explain the role of hospital as a healthcare institution.        | (8)  |
| 13   | Discuss the role of Medical, Nursing, Paramedical and Supporting staff in hospital.     | (8)  |
| 14   | Discuss the Health Care regulations pertaining to national and international framework. | (8)  |
| 15   | Enumerate the functions of Out Patient Department in a hospital.                        | (8)  |
| 16   | Explain the Sociocultural Environment of healthcare system.                             | (8)  |
| <b>PART D (Compulsory Question, 10 marks)</b>                                      |   |      |
| 17   | Conduct a PESTLE analysis of any one of the major hospital in Kerala.                   | (10) |

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| <b>SCHEME OF VALUATION / ANSWER KEY</b><br>(Scheme of evaluation (marks in brackets) and answers of problems/key) |  |                   |
| <b>UNIVERSITY OF CALICUT</b>  |  |                   |
| FIRST SEMESTER MBA HCM DEGREE EXAMINATION, MONTH, YEAR  |  |                   |
| <b>Course Code: BUS HCM 04</b>  |  |                   |
| <b>Course Name: HEALTH CARE ENVIRONMENT</b>   |  |                   |
| Max. Marks: 60  |  | Duration: 3 Hours |
| <b>PART A</b>   |  |                   |
|   | <i>Answer all questions, each carries 2 marks.</i>   | Marks             |
| 1   | - 1 mark for defining Population Policy<br>- 1 mark for explaining any one type of Population Policy | (2)               |
| 2   | - 2 marks for explaining two functions of State Medical Council Bodies                               | (2)               |



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|--|---|------|
| 3  | - 1 mark for defining urban medical care.<br>- 1 mark for explaining one salient feature of urban medical care.   | (2)  |
| 4  | - 1 mark defining primary care<br>- 1 mark for explaining two key components of primary care  | (2)  |
| 5  | - 1 mark for defining epidemiology.<br>- 1 mark for explaining aim or scope or principles of epidemiology.  | (2)  |
| <b>PART B</b>  |   |      |
| <i>Answer any FOUR questions from this section. Each question carries 4 marks.</i> |   |      |
| 6  | -Explaining preventive care and curative care:2 marks<br>-Distinction between two: 2 marks  | (4)  |
| 7  | - Any four features of Medical education policy: 4 marks  | (4)  |
| 8  | - Any four functions of pediatric services: 4 marks   | (4)  |
| 9  | - Explanation of Epidemiological principles:4 marks   | (4)  |
| 10   | - Explanation of conceptual framework: 4 marks  | (4)  |
| 11   | - Definition of MCI along with its role in health regulation:4 marks  | (4)  |
| <b>PART C</b>  |   |      |
| <i>Answer any THREE questions from this section. Each question carries 8 marks</i> |   |      |
| 12   | - Classification of Hospitals: 4 marks<br>- Elucidate hospital as healthcare institution: 4 marks   | (8)  |
| 13   | - Any three roles each of medical, nursing, paramedical and supporting staff in hospital: 8 marks   | (8)  |
| 14   | - Health Care regulations pertaining to national framework:4 marks<br>- Health Care regulations pertaining to International framework:4 marks   | (8)  |
| 15   | - List out at least eight functions of Outpatient services :8 marks   | (8)  |
| 16   | - Key components, features and challenges of sociocultural environment in hospital:8 marks  | (8)  |
| <b>- PART D (Compulsory Question, 10 marks)</b>                                    |   |      |
| 17   | - Detailed explanation of PESTLE analysis in hospital :<br>- Politico legal : 2 marks<br>- Economic :2 marks<br>- Socio cultural :2 marks<br>- Technological :2 marks<br>- Environmental :2 marks | (10) |

### MODEL QUESTION PAPER

### UNIVERSITY OF CALICUT

FIRST SEMESTER MBA HCM DEGREE EXAMINATION, MONTH, YEAR

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| <b>Course Code: BUS HCM S1 05</b>  |  |                   |
| <b>Course Name: FUNDAMENTALS OF MEDICAL SCIENCE</b>                                |  |                   |
| Max. Marks: 60   |  | Duration: 3 Hours |
| <b>PART A</b>  |  |                   |
|  | <i>Answer all questions, each carries 2 marks.</i>   | Marks             |
| 1  | Define Chromosome and name any two chromosomal abnormalities.  | (2)               |
| 2  | Mention the normal and abnormal values of Platelet count, RBC count and WBC with one condition, where they become abnormal.                      | (2)               |
| 3  | Explain the process of blood coagulation.  | (2)               |
| 4  | Name different type of secretions from GIT.  | (2)               |
| 5  | Explain the mechanism of Respiration.  | (2)               |
| <b>PART B</b>  |  |                   |
| <i>Answer any FOUR questions from this section. Each question carries 4 marks.</i> |  |                   |
| 6  | Explain in detail the different Methods of Sterilization techniques.   | (4)               |
| 7  | Describe the anatomy and functions of cardiovascular system. Write in brief the types of blood group.  | (4)               |
| 8  | Examine the different types of connective tissue in the human body with examples   | (4)               |
| 9  | Discuss Spinal cord with its tracts using a proper diagram   | (4)               |
| 10   | Define blood pressure and mention its normal value. Explain what are the factors influencing BP.   | (4)               |
| 11   | Describe the anatomy of nephron with physiology of filtration and secretion.   | (4)               |
| <b>PART C</b>  |  |                   |
| <i>Answer any THREE questions from this section. Each question carries 8 marks</i> |  |                   |
| 12   | Describe the anatomy and functions of female reproductive system. Write in brief the difference between the female and male reproductive system. | (8)               |
| 13   | Describe the mechanism of digestion in the human body with flow diagram.   | (8)               |
| 14   | Discuss the urinary system and describe about kidney.  | (8)               |
| 15   | Explain in brief about central nervous system. Describe a reflex arc and its importance.   | (8)               |
| 16   | Discuss various factors responsible for congenital diseases. Briefly explain different congenital abnormalities.                                 | (8)               |
| <b>PART D (Compulsory Question, 10 marks)</b>                                      |  |                   |
| 17   | Explain the endocrine system and its functioning with the help of diagram.   | (10)              |

| <b>SCHEME OF VALUATION / ANSWER KEY</b><br>(Scheme of evaluation (marks in brackets) and answers of problems/key) |   |                   |
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| <b>UNIVERSITY OF CALICUT</b><br>FIRST SEMESTER MBA HCM DEGREE EXAMINATION, MONTH, YEAR                            |   |                   |
| <b>Course Code: BUS HCM 05</b>  |   |                   |
| <b>Course Name: FUNDAMENTALS OF MEDICAL SCIENCE</b>   |   |                   |
| Max. Marks: 60  |   | Duration: 3 Hours |
| <b>PART A</b>   |   |                   |
|   | <i>Answer all questions, each carries 2 marks.</i>  | Marks             |
| 1   | - 1 mark for defining Chromosome.<br>- 1 mark for naming two chromosomal abnormalities.   | (2)               |
| 2   | - 1 mark for defining normal and abnormal count<br>- 1 mark for discussing an abnormal condition.                                   | (2)               |
| 3   | - 1 mark for defining the blood coagulation process.<br>- 1 mark for explaining the coagulation mechanism.                          | (2)               |
| 4   | - 1 mark for naming secretions from GIT<br>- 1 mark for explaining any of its functions   | (2)               |
| 5   | - 1 mark for defining respiration.<br>- 1 mark for discussing the mechanism of respiration.   | (2)               |
| <b>PART B</b>   |   |                   |
| <i>Answer any FOUR questions from this section. Each question carries 4 marks.</i>                                |   |                   |
| 6   | -Any four sterilization methods:4 marks   | (4)               |
| 7   | - Anatomy and functions of CVS: 2 marks<br>- Types of blood groups: 2 marks   | (4)               |
| 8   | - Four different types of connective tissue: 4 marks  | (4)               |
| 9   | - Explanation of Spinal cord with its tracts: 2 marks<br>- Diagram: 2 marks   | (4)               |
| 10  | - Explanation of Blood Pressure: 2 marks<br>- Factors influencing BP: 2 marks   | (4)               |
| 11  | - Anatomy of nephron: 2 marks<br>- Physiology of filtration and secretion: 2 marks  | (4)               |
| <b>PART C</b>   |   |                   |
| <i>Answer any THREE questions from this section. Each question carries 8 marks</i>                                |   |                   |
| 12  | - Anatomy and functions of female reproductive system: 4 marks<br>- Difference between male and female reproductive system: 4 marks | (8)               |

|   |  |      |
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| 13  | - Mechanism of digestion in the human body: 4 marks<br>- Flow diagram: 4 marks                       | (8)  |
| 14  | - Explain urinary system:4 marks<br>- Describe about kidney with diagram:4 marks                     | (8)  |
| 15  | - Explanation of CNS :4 marks<br>- Reflex arc with its importance:4 marks                            | (8)  |
| 16  | - Factors responsible for congenital diseases:4 marks<br>- Any four congenital abnormalities:4 marks | (8)  |
| <b>- PART D (Compulsory Question, 10 marks)</b> |  |      |
| 17  | - Detailed explanation of minimum of 5 glands with diagrammatic representation:2x5=10 marks          | (10) |

| <b>MODEL QUESTION PAPER</b>   |  |                   |
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| <b>UNIVERSITY OF CALICUT</b>  |  |                   |
| FIRST SEMESTER MBA HCM DEGREE EXAMINATION, MONTH, YEAR                              |  |                   |
| <b>Course Code: BUS HCM S1 06</b>   |  |                   |
| <b>Course Name: QUANTITATIVE TECHNIQUES FOR HEALTHCARE<br/>MANAGEMENT DECISIONS</b> |  |                   |
| Max. Marks: 60  |  | Duration: 3 Hours |
| <b>PART A</b>   |  |                   |
|   | <i>Answer all questions, each carries 2 marks.</i>   | Marks             |
| 1   | Define Operations Research.  | (2)               |
| 2   | Explain Bayes' theorem.  | (2)               |
| 3   | Summaries procedure for testing hypothesis.  | (2)               |
| 4   | What is degeneracy in Transportation problem.  | (2)               |
| 5   | Define probability.  | (2)               |
| <b>PART B</b>   |  |                   |
| <i>Answer any FOUR questions from this section. Each question carries 4 marks.</i>  |  |                   |
| 6   | Suppose in a group of 50 members, there are 15 junior students, 20 senior students and 15 instructors. What is the probability that a person randomly picked from this group is either junior or senior student? | (4)               |
| 7   | Write the application and uses of Assignment problem.  | (4)               |
| 8   | Solve graphically the following LPP  | (4)               |

|    |  |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |
|----|--|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|
|    | <div>Min      <math>Z=3X_1 + 5X_2</math><br/>S. t.    <math>-3X_1 +4X_2 \geq 12</math><br/><math>2X_1 -X_2 \geq -2</math><br/><math>2X_1 + 3X_2 \geq 12</math><br/><math>X_1 \leq 4; X_2 \geq 2</math><br/><math>X_1, X_2 \geq 0</math></div>  |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |
| 9  | Explain methods of regression.   | (4) |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |
| 10 | <p>A college department chairman has the problem of providing instructions for the courses offered by his department at the highest possible level of educational quality. He has arrived at the following relative ratings regarding the ability of each instructor to each of the four courses.</p> <table><tr><td></td><td>A</td><td>B</td><td>C</td><td>D</td></tr><tr><td>1</td><td>6</td><td>4</td><td>6</td><td>7</td></tr><tr><td>2</td><td>2</td><td>6</td><td>5</td><td>7</td></tr><tr><td>3</td><td>2</td><td>3</td><td>4</td><td>6</td></tr><tr><td>4</td><td>3</td><td>1</td><td>3</td><td>4</td></tr></table> <p>How should he assign the instructions to courses to maximise educational quality in his department.</p> |     | A | B | C | D | 1 | 6 | 4 | 6 | 7 | 2 | 2 | 6 | 5 | 7 | 3 | 2 | 3 | 4 | 6 | 4 | 3 | 1 | 3 | 4 | (4) |
|    | A  | B   | C | D |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |
| 1  | 6  | 4   | 6 | 7 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |
| 2  | 2  | 6   | 5 | 7 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |
| 3  | 2  | 3   | 4 | 6 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |
| 4  | 3  | 1   | 3 | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |
| 11 | An urn contains 20 red and 10 blue balls. Two balls are drawn from a bag one after the other without replacement. What is the probability that both the balls are drawn are red?   | (4) |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |

|   |  |      |   |   |   |      |      |   |      |      |   |      |      |     |
|---|--|------|---|---|---|------|------|---|------|------|---|------|------|-----|
| PART C  |  |      |   |   |   |      |      |   |      |      |   |      |      |     |
| Answer any THREE questions from this section. Each question carries 8 marks |  |      |   |   |   |      |      |   |      |      |   |      |      |     |
| 12  | <p>A multi-plant company has three manufacturing plants A, B and C and Two markets X and Y. Production costs at A,B and C is Rs. 1500/- Rs. 1600/- and Rs 1700/- per piece respectively. Selling price in X and Y are Rs. 4400/- and Rs 4700/- resp. Demand in X and y are 3500 and 3600 pieces respectively. Production capacities at A,B and c are 2000, 3000 and 4000 pieces resp. Transportation costs are as shown in adjacent matrix .</p> <p>Solve the problem so as to maximise the profit.</p> <table><tr><td></td><td>X</td><td>Y</td></tr><tr><td>A</td><td>1000</td><td>1500</td></tr><tr><td>B</td><td>2000</td><td>3000</td></tr><tr><td>C</td><td>1500</td><td>2500</td></tr></table> |      | X | Y | A | 1000 | 1500 | B | 2000 | 3000 | C | 1500 | 2500 | (8) |
|   | X  | Y    |   |   |   |      |      |   |      |      |   |      |      |     |
| A   | 1000   | 1500 |   |   |   |      |      |   |      |      |   |      |      |     |
| B   | 2000   | 3000 |   |   |   |      |      |   |      |      |   |      |      |     |
| C   | 1500   | 2500 |   |   |   |      |      |   |      |      |   |      |      |     |
| 13  | Explain different types of sampling techniques.  | (8)  |   |   |   |      |      |   |      |      |   |      |      |     |
| 14  | Explain different techniques in operations research.   | (8)  |   |   |   |      |      |   |      |      |   |      |      |     |
| 15  | An online medicine shop claims that the mean delivery time for medicines is less than 120 minutes with a standard deviation of 30 minutes. Is there enough evidence to support this claim at a 0.05 significance level if 49 orders were examined with a mean of 100 minutes?  | (8)  |   |   |   |      |      |   |      |      |   |      |      |     |
| 16  | <p>Solve the LPP using Two phase method</p> <div>Min      <math>Z =X_1 +X_2</math><br/>S. t.    <math>2X_1 +x_2 \geq 4</math><br/><math>X_1 + 7x_2 \geq 7</math></div>   | (8)  |   |   |   |      |      |   |      |      |   |      |      |     |

|  | $X_1, x_2 \geq 0$   |            |             |  |  |  |   |    |     |   |    |    |    |   |    |    |    |   |    |    |    |   |    |    |    |   |    |    |    |      |
|--|---|------------|-------------|--|--|--|---|----|-----|---|----|----|----|---|----|----|----|---|----|----|----|---|----|----|----|---|----|----|----|------|
| <b><i>PART D (Compulsory Question, 10 marks)</i></b> |   |            |             |  |  |  |   |    |     |   |    |    |    |   |    |    |    |   |    |    |    |   |    |    |    |   |    |    |    |      |
| 17   | <p>The illness caused by a virus in a city concerning some restaurant inspectors is not consistent with their evaluations of cleanliness of restaurants. In order to investigate this possibility, the director has five restaurant inspectors to grade the cleanliness of three restaurants. The results are shown below.</p> <table><tr><th>Inspectors</th><th colspan="3">Restaurants</th></tr><tr><th></th><th>I</th><th>II</th><th>III</th></tr><tr><td>1</td><td>71</td><td>55</td><td>84</td></tr><tr><td>2</td><td>65</td><td>57</td><td>86</td></tr><tr><td>3</td><td>70</td><td>65</td><td>77</td></tr><tr><td>4</td><td>72</td><td>69</td><td>70</td></tr><tr><td>5</td><td>76</td><td>64</td><td>85</td></tr></table> <p>Carry out two-way ANOVA at 5% level of significance.</p> | Inspectors | Restaurants |  |  |  | I | II | III | 1 | 71 | 55 | 84 | 2 | 65 | 57 | 86 | 3 | 70 | 65 | 77 | 4 | 72 | 69 | 70 | 5 | 76 | 64 | 85 | (10) |
| Inspectors   | Restaurants   |            |             |  |  |  |   |    |     |   |    |    |    |   |    |    |    |   |    |    |    |   |    |    |    |   |    |    |    |      |
|  | I   | II         | III         |  |  |  |   |    |     |   |    |    |    |   |    |    |    |   |    |    |    |   |    |    |    |   |    |    |    |      |
| 1  | 71  | 55         | 84          |  |  |  |   |    |     |   |    |    |    |   |    |    |    |   |    |    |    |   |    |    |    |   |    |    |    |      |
| 2  | 65  | 57         | 86          |  |  |  |   |    |     |   |    |    |    |   |    |    |    |   |    |    |    |   |    |    |    |   |    |    |    |      |
| 3  | 70  | 65         | 77          |  |  |  |   |    |     |   |    |    |    |   |    |    |    |   |    |    |    |   |    |    |    |   |    |    |    |      |
| 4  | 72  | 69         | 70          |  |  |  |   |    |     |   |    |    |    |   |    |    |    |   |    |    |    |   |    |    |    |   |    |    |    |      |
| 5  | 76  | 64         | 85          |  |  |  |   |    |     |   |    |    |    |   |    |    |    |   |    |    |    |   |    |    |    |   |    |    |    |      |

|   |  |                   |
|---|--|-------------------|
| <b>SET 1</b>  |  |                   |
| <b>SCHEME OF VALUATION / ANSWER KEY</b><br>(Scheme of evaluation (marks in brackets) and answers of problems/key) |  |                   |
| <b>UNIVERSITY OF CALICUT</b><br>FIRST SEMESTER MBA HCM DEGREE EXAMINATION, MONTH, YEAR                            |  |                   |
| <b>Course Code: BUS HCM S1 06</b>   |  |                   |
| <b>Course Name: QUANTITATIVE TECHNIQUES FOR HEALTHCARE MANAGEMENT DECISIONS</b>                                   |  |                   |
| Max. Marks: 60  |  | Duration: 3 Hours |
|   |  |                   |
| <b>PART A</b>   |  |                   |
|   | <i>Answer all questions, each carries 2 marks.</i>     | Marks             |
| 1   | Definition of OR- 2 marks or<br>Meaning of OR- 2 marks | (2)               |
| 2   | Bayes theorem- 2 marks                                 | (2)               |
| 3   | Procedure for testing hypothesis- 2 marks              | (2)               |
| 4   | Degeneracy in TP -2 marks                              | (2)               |
| 5   | Definition of probability -2 marks                     | (2)               |

| <b>PART B</b>  |  |  |      |
|--|--|--|------|
| <i>Answer any FOUR questions from this section. Each question carries 4 marks.</i> |  |  |      |
| 6  |  | Addition probability formulation for two mutually exclusive events, for steps -2 marks<br>Full answer 4 marks.                         | (4)  |
| 7  |  | Minimum 6 uses and application of AP -give 4 marks   | (4)  |
| 8  |  | Graphical method of solving LPP, give 4 MARKS<br>For graph only give 2 marks.  | (4)  |
| 9  |  | Explain at least two methods , method of least square and graphical method. Give 2 marks.  | (4)  |
| 10   |  | Assignment problem partially correct give 2 marks.<br>Also find assignment cost, give 4 marks.   | (4)  |
| 11   |  | Probability – for steps give 2 marks<br>Full answer give 4 marks.  | (4)  |
| <b>PART C</b>  |  |  |      |
| <i>Answer any THREE questions from this section. Each question carries 8 marks</i> |  |  |      |
| 12   |  | Transportation problem steps : give 4 marks<br>Full answer with Transportation cost : 8 marks  | (8)  |
| 13   |  | Minimum 6 sampling techniques should be explained. Then give 6 marks.  | (8)  |
| 14   |  | Minimum 8 Techniques should be explained give 6 marks.   | (8)  |
| 15   |  | Z test, for steps – give 4 marks<br>Full answer 8 marks can be given.  | (8)  |
| 16   |  | LPP phase on completed – give 4 marks<br>Phase two completed – give 8 marks.   | (8)  |
|  |  | <b><i>PART D (Compulsory Question, 10 marks)</i></b>   |      |
| 18   |  | <b><i>ANOVA one way or steps are partially correct– give 5 marks</i></b><br><b><i>ANOVA two way - full answer – give 10 marks.</i></b> | (10) |

| Course Name: ACCOUNTING FOR HEALTHCARE MANAGERS                             |   |   |                  |          |
|---|---|---|------------------|----------|
| Max. Marks: 60  |   | Duration: 3 Hours   |                  |          |
|   |   |   |                  |          |
| PART A  |   |   |                  |          |
|   | Answer all questions, each carries 2 marks.                               |   |                  | Marks    |
| 1   | Define Financial Accounting.  |   |                  | (2)      |
| 2   | Distinguish between trade discount and cash discount.                     |   |                  | (2)      |
| 3   | What is cross subsidy   |   |                  | (2)      |
| 4   | What is human resources accounting?                                       |   |                  | (2)      |
| 5   | What do you mean by GAAP?   |   |                  | (2)      |
| PART B  |   |   |                  |          |
| Answer any FOUR questions from this section. Each question carries 4 marks. |   |   |                  |          |
| 6   | What do you mean by accounting concepts and conventions ?                 |   |                  | (4)      |
| 7   | What is the difference between profit and loss account and balance sheet? |   |                  | (4)      |
| 8   | What is the nature and functions of hospital accounting?                  |   |                  | (4)      |
| 9   | Pass JE in the books of Mr. Madhu in the year 2024                        |   |                  | (4)      |
|   | 2024 Jan. 1   | Started business with cash  | 1,00,000         |          |
|   | Jan. 8  | Purchased goods with 20% trade discount and 5% cash discount        | 50,000           |          |
|   | Jan. 12   | Bought shares of Bhavana Ltd. and brokerage paid Rs. 25             | 1,500            |          |
|   | Jan. 16   | Purchased a motor car in exchange of goods and cash                 | 25,000<br>50,000 |          |
|   | Jan. 20   | Sold goods to Mr. Yash on credit                                    | 60,000           |          |
|   | Jan. 22   | Purchased goods from Mr. Rohit                                      | 25,000           |          |
|   | Jan 29.   | Mr. Yash became insolvent and only 50% is recovered from his assets |                  |          |
|   | Jan. 30   | Cash withdrawn by the proprietor for personal use                   | 5,000            |          |
|   | Jan. 31   | Paid into bank  | 5,000            |          |
|   | Jan 31  | goods distributed as charity  | 1,000            |          |
|   | Jan. 31   | Goods lost by fire  | 10,000           |          |
| 10  | Prepare a trial balance of Mr. Murali as on March 31 <sup>st</sup> , 2024 |   |                  | (4)      |
|   | Capital   | 9,20,000  | Machinery        | 1,20,000 |
|   | Creditors   | 2,88,520  | Furniture        | 16,400   |
|   | Bills Payable   | 69,300  | Debtors          | 1,56,000 |
|   | Sales   | 12,18,500   | Opening Stock    | 2,50,400 |
|   | Provision for Doubtful  | 14,200  | Cash in Hand     | 9,880    |



|  |  |                   |          |                     |        |  |
|--|--|-------------------|----------|---------------------|--------|--|
|  |  | Debts             |          |                     |        |  |
|  |  | Interest (Cr.)    | 4,400    | Bad Debt            | 6,130  |  |
|  |  | Building          | 7,00,000 | Audit Fees          | 5,000  |  |
|  |  | Cash at Bank      | 1,45,340 | Travelling Expenses | 4,250  |  |
|  |  | Bills Receivable  | 58,440   | Discount (Dr.)      | 6,200  |  |
|  |  | Purchases         | 8,55,220 | Sales Returns       | 2,850  |  |
|  |  | Carriage Inwards  | 12,910   | Investments         | 89,220 |  |
|  |  | Carriage Outwards | 8,000    | General Expenses    | 60,850 |  |
|  |  | Insurance         | 7,830    |                     |        |  |

11 How do you create a company in tally ? (4)

### PART C

*Answer any THREE questions from this section. Each question carries 8 marks*

12 Describe the regulatory framework of financial reporting in India. (8)

13 From the following Receipt and Payment Account of a club, prepare Income and Expenditure Account for the year ended December 31, 2013. (8)

#### Receipt and Payment Account

for the year ending December 31, 2013

Dr.

Cr.

| Receipts                              | Amount (₹) | Payments            | Amount (₹) |
|---------------------------------------|------------|---------------------|------------|
| Balance b/d                           | 3,500      | General expenses    | 900        |
| Subscriptions                         |            | Salary              | 16,000     |
| 2012 2,000                            |            | Postage             | 1,300      |
| 2013 70,000                           |            | Electricity charges | 7,800      |
| 2014 3,000                            | 75,000     | Furniture           | 26,500     |
| Sale of old Books (Costing Rs. 3,200) | 2,000      | Books               | 13,000     |
| Rent from use of hall                 | 17,000     | Newspapers          | 600        |
| Sale of newspapers                    | 400        | Meeting expenses    | 7,200      |
| Profit from entertainment             | 7,300      | T.V. set            | 16,000     |
|                                       |            | Balance c/d         | 15,900     |
|                                       | 1,05,200   |                     | 1,05,200   |

Additional

Information:

- (a) The club has 100 members each paying an annual subscription of Rs.900. Subscriptions outstanding on December 31, 2012 were Rs.3,600.  
(b) On December 31, 2013, salary outstanding amounted to Rs.1,000, Salary paid included Rs.1,000 for the year 2012.  
(c) On January 1, 2013 the club owned land and building Rs 25,000, furniture Rs.2,600 and books Rs.6,200.

14 From the following details prepare a balance sheet as on 31st March 2023 : (8)

- Current ratio ... 2.5  
Liquid ratio ... 1.5  
Bank overdraft ... 30,000  
Working capital ... 1,80,000  
Fixed Assets ... 5,40,000  
Reserves and surplus ... 1,20,000  
Proprietary ratio ... 0.75 (FA to proprietary funds)

|   |  |                  |                  |                 |              |          |        |                 |          |          |          |               |        |                   |          |                  |          |                     |          |                     |        |             |       |        |          |                   |        |        |             |                      |          |                   |        |          |          |        |        |                              |        |       |                  |                  |       |  |  |                   |         |        |        |              |        |  |              |          |        |  |          |                       |       |          |          |                  |       |  |  |              |        |  |  |              |       |  |  |                |          |  |  |      |
|---|--|------------------|------------------|-----------------|--------------|----------|--------|-----------------|----------|----------|----------|---------------|--------|-------------------|----------|------------------|----------|---------------------|----------|---------------------|--------|-------------|-------|--------|----------|-------------------|--------|--------|-------------|----------------------|----------|-------------------|--------|----------|----------|--------|--------|------------------------------|--------|-------|------------------|------------------|-------|--|--|-------------------|---------|--------|--------|--------------|--------|--|--------------|----------|--------|--|----------|-----------------------|-------|----------|----------|------------------|-------|--|--|--------------|--------|--|--|--------------|-------|--|--|----------------|----------|--|--|------|
| 15  | <div>1. Following are the Balance Sheets of Krishna Ltd., as on 31<sup>st</sup> March 2019,2020.</div> <table><tr><td>Liabilities</td><td>2019</td><td>2020</td><td>Assets</td><td>2019</td><td>2020</td></tr><tr><td>Share Capital</td><td>1,50,000</td><td>2.00,000</td><td>Goodwill</td><td>15,000</td><td>12,000</td></tr><tr><td>General Reserve</td><td>15,000</td><td>20,000</td><td>Building</td><td>1,00,000</td><td>1,42,000</td></tr><tr><td>Profit and Loss A/c</td><td>15,000</td><td>12,000</td><td>Plant</td><td>35,000</td><td>40,000</td></tr><tr><td>Sundry Creditors</td><td>10.000</td><td>12.000</td><td>Investments</td><td>10,000</td><td>12,000</td></tr><tr><td>Provision for Tax</td><td>15,000</td><td>20,000</td><td>Stock</td><td>15,500</td><td>12,000</td></tr><tr><td>Provision for Doubtful Debts</td><td>500</td><td>1.000</td><td>Bills Receivable</td><td>5,000</td><td>7,000</td></tr><tr><td></td><td></td><td></td><td>Debtors</td><td>20,000</td><td>25,000</td></tr><tr><td></td><td></td><td></td><td>Cash at Bank</td><td>5,000</td><td>15,000</td></tr><tr><td></td><td>2,05,500</td><td>2,65,000</td><td></td><td>2,05,500</td><td>2,65,000</td></tr></table> <div>Prepare a schedule of changes in working capital and a funds flow statement:</div> <div>Additional Information:</div> <div><div>1. Depreciation charged on plant was Rs. 4,000 and on building Rs. 7,000</div><div>2. Provision for taxation of Rs. 20,000 was made during the year.</div><div>3. Interim dividend of Rs. 15,000 was paid during the year.</div></div> | Liabilities      | 2019             | 2020            | Assets       | 2019     | 2020   | Share Capital   | 1,50,000 | 2.00,000 | Goodwill | 15,000        | 12,000 | General Reserve   | 15,000   | 20,000           | Building | 1,00,000            | 1,42,000 | Profit and Loss A/c | 15,000 | 12,000      | Plant | 35,000 | 40,000   | Sundry Creditors  | 10.000 | 12.000 | Investments | 10,000               | 12,000   | Provision for Tax | 15,000 | 20,000   | Stock    | 15,500 | 12,000 | Provision for Doubtful Debts | 500    | 1.000 | Bills Receivable | 5,000            | 7,000 |  |  |                   | Debtors | 20,000 | 25,000 |              |        |  | Cash at Bank | 5,000    | 15,000 |  | 2,05,500 | 2,65,000              |       | 2,05,500 | 2,65,000 | (8)              |       |  |  |              |        |  |  |              |       |  |  |                |          |  |  |      |
| Liabilities                                       | 2019   | 2020             | Assets           | 2019            | 2020         |          |        |                 |          |          |          |               |        |                   |          |                  |          |                     |          |                     |        |             |       |        |          |                   |        |        |             |                      |          |                   |        |          |          |        |        |                              |        |       |                  |                  |       |  |  |                   |         |        |        |              |        |  |              |          |        |  |          |                       |       |          |          |                  |       |  |  |              |        |  |  |              |       |  |  |                |          |  |  |      |
| Share Capital                                     | 1,50,000   | 2.00,000         | Goodwill         | 15,000          | 12,000       |          |        |                 |          |          |          |               |        |                   |          |                  |          |                     |          |                     |        |             |       |        |          |                   |        |        |             |                      |          |                   |        |          |          |        |        |                              |        |       |                  |                  |       |  |  |                   |         |        |        |              |        |  |              |          |        |  |          |                       |       |          |          |                  |       |  |  |              |        |  |  |              |       |  |  |                |          |  |  |      |
| General Reserve                                   | 15,000   | 20,000           | Building         | 1,00,000        | 1,42,000     |          |        |                 |          |          |          |               |        |                   |          |                  |          |                     |          |                     |        |             |       |        |          |                   |        |        |             |                      |          |                   |        |          |          |        |        |                              |        |       |                  |                  |       |  |  |                   |         |        |        |              |        |  |              |          |        |  |          |                       |       |          |          |                  |       |  |  |              |        |  |  |              |       |  |  |                |          |  |  |      |
| Profit and Loss A/c                               | 15,000   | 12,000           | Plant            | 35,000          | 40,000       |          |        |                 |          |          |          |               |        |                   |          |                  |          |                     |          |                     |        |             |       |        |          |                   |        |        |             |                      |          |                   |        |          |          |        |        |                              |        |       |                  |                  |       |  |  |                   |         |        |        |              |        |  |              |          |        |  |          |                       |       |          |          |                  |       |  |  |              |        |  |  |              |       |  |  |                |          |  |  |      |
| Sundry Creditors                                  | 10.000   | 12.000           | Investments      | 10,000          | 12,000       |          |        |                 |          |          |          |               |        |                   |          |                  |          |                     |          |                     |        |             |       |        |          |                   |        |        |             |                      |          |                   |        |          |          |        |        |                              |        |       |                  |                  |       |  |  |                   |         |        |        |              |        |  |              |          |        |  |          |                       |       |          |          |                  |       |  |  |              |        |  |  |              |       |  |  |                |          |  |  |      |
| Provision for Tax                                 | 15,000   | 20,000           | Stock            | 15,500          | 12,000       |          |        |                 |          |          |          |               |        |                   |          |                  |          |                     |          |                     |        |             |       |        |          |                   |        |        |             |                      |          |                   |        |          |          |        |        |                              |        |       |                  |                  |       |  |  |                   |         |        |        |              |        |  |              |          |        |  |          |                       |       |          |          |                  |       |  |  |              |        |  |  |              |       |  |  |                |          |  |  |      |
| Provision for Doubtful Debts                      | 500  | 1.000            | Bills Receivable | 5,000           | 7,000        |          |        |                 |          |          |          |               |        |                   |          |                  |          |                     |          |                     |        |             |       |        |          |                   |        |        |             |                      |          |                   |        |          |          |        |        |                              |        |       |                  |                  |       |  |  |                   |         |        |        |              |        |  |              |          |        |  |          |                       |       |          |          |                  |       |  |  |              |        |  |  |              |       |  |  |                |          |  |  |      |
|   |  |                  | Debtors          | 20,000          | 25,000       |          |        |                 |          |          |          |               |        |                   |          |                  |          |                     |          |                     |        |             |       |        |          |                   |        |        |             |                      |          |                   |        |          |          |        |        |                              |        |       |                  |                  |       |  |  |                   |         |        |        |              |        |  |              |          |        |  |          |                       |       |          |          |                  |       |  |  |              |        |  |  |              |       |  |  |                |          |  |  |      |
|   |  |                  | Cash at Bank     | 5,000           | 15,000       |          |        |                 |          |          |          |               |        |                   |          |                  |          |                     |          |                     |        |             |       |        |          |                   |        |        |             |                      |          |                   |        |          |          |        |        |                              |        |       |                  |                  |       |  |  |                   |         |        |        |              |        |  |              |          |        |  |          |                       |       |          |          |                  |       |  |  |              |        |  |  |              |       |  |  |                |          |  |  |      |
|   | 2,05,500   | 2,65,000         |                  | 2,05,500        | 2,65,000     |          |        |                 |          |          |          |               |        |                   |          |                  |          |                     |          |                     |        |             |       |        |          |                   |        |        |             |                      |          |                   |        |          |          |        |        |                              |        |       |                  |                  |       |  |  |                   |         |        |        |              |        |  |              |          |        |  |          |                       |       |          |          |                  |       |  |  |              |        |  |  |              |       |  |  |                |          |  |  |      |
| 16  | <div>What are the main differences between Group and Ledger in tally 9</div>   | (8)              |                  |                 |              |          |        |                 |          |          |          |               |        |                   |          |                  |          |                     |          |                     |        |             |       |        |          |                   |        |        |             |                      |          |                   |        |          |          |        |        |                              |        |       |                  |                  |       |  |  |                   |         |        |        |              |        |  |              |          |        |  |          |                       |       |          |          |                  |       |  |  |              |        |  |  |              |       |  |  |                |          |  |  |      |
| <div>PART D (Compulsory Question, 10 marks)</div> |  |                  |                  |                 |              |          |        |                 |          |          |          |               |        |                   |          |                  |          |                     |          |                     |        |             |       |        |          |                   |        |        |             |                      |          |                   |        |          |          |        |        |                              |        |       |                  |                  |       |  |  |                   |         |        |        |              |        |  |              |          |        |  |          |                       |       |          |          |                  |       |  |  |              |        |  |  |              |       |  |  |                |          |  |  |      |
| 17  | <div>2. From the following balances, prepare the final accounts as on 31 March, 2019.<br/>Extracts of Balances as on 31 -03-2019 :</div> <table><tr><td>Debit Balances</td><td>Amount (Rs.)</td><td>Credit Balances</td><td>Amount (Rs.)</td></tr><tr><td>Drawings</td><td>45,000</td><td>Capital account</td><td>6,09,000</td></tr><tr><td>Goodwill</td><td>90,000</td><td>Bills payable</td><td>41,400</td></tr><tr><td>Land and building</td><td>1,80,000</td><td>Sundry creditors</td><td>91,500</td></tr><tr><td>Plant and machinery</td><td>1,20,000</td><td>Purchase returns</td><td>7,950</td></tr><tr><td>Loose tools</td><td>9,000</td><td>Sales</td><td>3,45,000</td></tr><tr><td>Bills receivables</td><td>6,000</td><td></td><td></td></tr><tr><td>Stock as on 1-4-2018</td><td>1,20,000</td><td></td><td></td></tr><tr><td>Purchase</td><td>1,53,000</td><td></td><td></td></tr><tr><td>Wages</td><td>60,000</td><td></td><td></td></tr><tr><td>Carriage inwards</td><td>3,600</td><td></td><td></td></tr><tr><td>Carriage outwards</td><td>6,000</td><td></td><td></td></tr><tr><td>Coal and gas</td><td>16,800</td><td></td><td></td></tr><tr><td>Salaries</td><td>12,000</td><td></td><td></td></tr><tr><td>Rent, rates and taxes</td><td>8,400</td><td></td><td></td></tr><tr><td>Discount allowed</td><td>4,500</td><td></td><td></td></tr><tr><td>Cash at bank</td><td>75,000</td><td></td><td></td></tr><tr><td>Cash in hand</td><td>4,200</td><td></td><td></td></tr><tr><td>Sundry debtors</td><td>1,35,000</td><td></td><td></td></tr></table>                 | Debit Balances   | Amount (Rs.)     | Credit Balances | Amount (Rs.) | Drawings | 45,000 | Capital account | 6,09,000 | Goodwill | 90,000   | Bills payable | 41,400 | Land and building | 1,80,000 | Sundry creditors | 91,500   | Plant and machinery | 1,20,000 | Purchase returns    | 7,950  | Loose tools | 9,000 | Sales  | 3,45,000 | Bills receivables | 6,000  |        |             | Stock as on 1-4-2018 | 1,20,000 |                   |        | Purchase | 1,53,000 |        |        | Wages                        | 60,000 |       |                  | Carriage inwards | 3,600 |  |  | Carriage outwards | 6,000   |        |        | Coal and gas | 16,800 |  |              | Salaries | 12,000 |  |          | Rent, rates and taxes | 8,400 |          |          | Discount allowed | 4,500 |  |  | Cash at bank | 75,000 |  |  | Cash in hand | 4,200 |  |  | Sundry debtors | 1,35,000 |  |  | (10) |
| Debit Balances                                    | Amount (Rs.)   | Credit Balances  | Amount (Rs.)     |                 |              |          |        |                 |          |          |          |               |        |                   |          |                  |          |                     |          |                     |        |             |       |        |          |                   |        |        |             |                      |          |                   |        |          |          |        |        |                              |        |       |                  |                  |       |  |  |                   |         |        |        |              |        |  |              |          |        |  |          |                       |       |          |          |                  |       |  |  |              |        |  |  |              |       |  |  |                |          |  |  |      |
| Drawings  | 45,000   | Capital account  | 6,09,000         |                 |              |          |        |                 |          |          |          |               |        |                   |          |                  |          |                     |          |                     |        |             |       |        |          |                   |        |        |             |                      |          |                   |        |          |          |        |        |                              |        |       |                  |                  |       |  |  |                   |         |        |        |              |        |  |              |          |        |  |          |                       |       |          |          |                  |       |  |  |              |        |  |  |              |       |  |  |                |          |  |  |      |
| Goodwill  | 90,000   | Bills payable    | 41,400           |                 |              |          |        |                 |          |          |          |               |        |                   |          |                  |          |                     |          |                     |        |             |       |        |          |                   |        |        |             |                      |          |                   |        |          |          |        |        |                              |        |       |                  |                  |       |  |  |                   |         |        |        |              |        |  |              |          |        |  |          |                       |       |          |          |                  |       |  |  |              |        |  |  |              |       |  |  |                |          |  |  |      |
| Land and building                                 | 1,80,000   | Sundry creditors | 91,500           |                 |              |          |        |                 |          |          |          |               |        |                   |          |                  |          |                     |          |                     |        |             |       |        |          |                   |        |        |             |                      |          |                   |        |          |          |        |        |                              |        |       |                  |                  |       |  |  |                   |         |        |        |              |        |  |              |          |        |  |          |                       |       |          |          |                  |       |  |  |              |        |  |  |              |       |  |  |                |          |  |  |      |
| Plant and machinery                               | 1,20,000   | Purchase returns | 7,950            |                 |              |          |        |                 |          |          |          |               |        |                   |          |                  |          |                     |          |                     |        |             |       |        |          |                   |        |        |             |                      |          |                   |        |          |          |        |        |                              |        |       |                  |                  |       |  |  |                   |         |        |        |              |        |  |              |          |        |  |          |                       |       |          |          |                  |       |  |  |              |        |  |  |              |       |  |  |                |          |  |  |      |
| Loose tools                                       | 9,000  | Sales            | 3,45,000         |                 |              |          |        |                 |          |          |          |               |        |                   |          |                  |          |                     |          |                     |        |             |       |        |          |                   |        |        |             |                      |          |                   |        |          |          |        |        |                              |        |       |                  |                  |       |  |  |                   |         |        |        |              |        |  |              |          |        |  |          |                       |       |          |          |                  |       |  |  |              |        |  |  |              |       |  |  |                |          |  |  |      |
| Bills receivables                                 | 6,000  |                  |                  |                 |              |          |        |                 |          |          |          |               |        |                   |          |                  |          |                     |          |                     |        |             |       |        |          |                   |        |        |             |                      |          |                   |        |          |          |        |        |                              |        |       |                  |                  |       |  |  |                   |         |        |        |              |        |  |              |          |        |  |          |                       |       |          |          |                  |       |  |  |              |        |  |  |              |       |  |  |                |          |  |  |      |
| Stock as on 1-4-2018                              | 1,20,000   |                  |                  |                 |              |          |        |                 |          |          |          |               |        |                   |          |                  |          |                     |          |                     |        |             |       |        |          |                   |        |        |             |                      |          |                   |        |          |          |        |        |                              |        |       |                  |                  |       |  |  |                   |         |        |        |              |        |  |              |          |        |  |          |                       |       |          |          |                  |       |  |  |              |        |  |  |              |       |  |  |                |          |  |  |      |
| Purchase  | 1,53,000   |                  |                  |                 |              |          |        |                 |          |          |          |               |        |                   |          |                  |          |                     |          |                     |        |             |       |        |          |                   |        |        |             |                      |          |                   |        |          |          |        |        |                              |        |       |                  |                  |       |  |  |                   |         |        |        |              |        |  |              |          |        |  |          |                       |       |          |          |                  |       |  |  |              |        |  |  |              |       |  |  |                |          |  |  |      |
| Wages   | 60,000   |                  |                  |                 |              |          |        |                 |          |          |          |               |        |                   |          |                  |          |                     |          |                     |        |             |       |        |          |                   |        |        |             |                      |          |                   |        |          |          |        |        |                              |        |       |                  |                  |       |  |  |                   |         |        |        |              |        |  |              |          |        |  |          |                       |       |          |          |                  |       |  |  |              |        |  |  |              |       |  |  |                |          |  |  |      |
| Carriage inwards                                  | 3,600  |                  |                  |                 |              |          |        |                 |          |          |          |               |        |                   |          |                  |          |                     |          |                     |        |             |       |        |          |                   |        |        |             |                      |          |                   |        |          |          |        |        |                              |        |       |                  |                  |       |  |  |                   |         |        |        |              |        |  |              |          |        |  |          |                       |       |          |          |                  |       |  |  |              |        |  |  |              |       |  |  |                |          |  |  |      |
| Carriage outwards                                 | 6,000  |                  |                  |                 |              |          |        |                 |          |          |          |               |        |                   |          |                  |          |                     |          |                     |        |             |       |        |          |                   |        |        |             |                      |          |                   |        |          |          |        |        |                              |        |       |                  |                  |       |  |  |                   |         |        |        |              |        |  |              |          |        |  |          |                       |       |          |          |                  |       |  |  |              |        |  |  |              |       |  |  |                |          |  |  |      |
| Coal and gas                                      | 16,800   |                  |                  |                 |              |          |        |                 |          |          |          |               |        |                   |          |                  |          |                     |          |                     |        |             |       |        |          |                   |        |        |             |                      |          |                   |        |          |          |        |        |                              |        |       |                  |                  |       |  |  |                   |         |        |        |              |        |  |              |          |        |  |          |                       |       |          |          |                  |       |  |  |              |        |  |  |              |       |  |  |                |          |  |  |      |
| Salaries  | 12,000   |                  |                  |                 |              |          |        |                 |          |          |          |               |        |                   |          |                  |          |                     |          |                     |        |             |       |        |          |                   |        |        |             |                      |          |                   |        |          |          |        |        |                              |        |       |                  |                  |       |  |  |                   |         |        |        |              |        |  |              |          |        |  |          |                       |       |          |          |                  |       |  |  |              |        |  |  |              |       |  |  |                |          |  |  |      |
| Rent, rates and taxes                             | 8,400  |                  |                  |                 |              |          |        |                 |          |          |          |               |        |                   |          |                  |          |                     |          |                     |        |             |       |        |          |                   |        |        |             |                      |          |                   |        |          |          |        |        |                              |        |       |                  |                  |       |  |  |                   |         |        |        |              |        |  |              |          |        |  |          |                       |       |          |          |                  |       |  |  |              |        |  |  |              |       |  |  |                |          |  |  |      |
| Discount allowed                                  | 4,500  |                  |                  |                 |              |          |        |                 |          |          |          |               |        |                   |          |                  |          |                     |          |                     |        |             |       |        |          |                   |        |        |             |                      |          |                   |        |          |          |        |        |                              |        |       |                  |                  |       |  |  |                   |         |        |        |              |        |  |              |          |        |  |          |                       |       |          |          |                  |       |  |  |              |        |  |  |              |       |  |  |                |          |  |  |      |
| Cash at bank                                      | 75,000   |                  |                  |                 |              |          |        |                 |          |          |          |               |        |                   |          |                  |          |                     |          |                     |        |             |       |        |          |                   |        |        |             |                      |          |                   |        |          |          |        |        |                              |        |       |                  |                  |       |  |  |                   |         |        |        |              |        |  |              |          |        |  |          |                       |       |          |          |                  |       |  |  |              |        |  |  |              |       |  |  |                |          |  |  |      |
| Cash in hand                                      | 4,200  |                  |                  |                 |              |          |        |                 |          |          |          |               |        |                   |          |                  |          |                     |          |                     |        |             |       |        |          |                   |        |        |             |                      |          |                   |        |          |          |        |        |                              |        |       |                  |                  |       |  |  |                   |         |        |        |              |        |  |              |          |        |  |          |                       |       |          |          |                  |       |  |  |              |        |  |  |              |       |  |  |                |          |  |  |      |
| Sundry debtors                                    | 1,35,000   |                  |                  |                 |              |          |        |                 |          |          |          |               |        |                   |          |                  |          |                     |          |                     |        |             |       |        |          |                   |        |        |             |                      |          |                   |        |          |          |        |        |                              |        |       |                  |                  |       |  |  |                   |         |        |        |              |        |  |              |          |        |  |          |                       |       |          |          |                  |       |  |  |              |        |  |  |              |       |  |  |                |          |  |  |      |

|  |   |                        |           |       |           |
|--|---|------------------------|-----------|-------|-----------|
|  |   | Repairs                | 5,400     |       |           |
|  |   | Print and stationery   | 1,500     |       |           |
|  |   | Bad debts              | 3,600     |       |           |
|  |   | Advertisements         | 10,500    |       |           |
|  |   | Sales returns          | 6,000     |       |           |
|  |   | Furniture and fittings | 3,600     |       |           |
|  |   | General expenses       | 15,750    |       |           |
|  |   | Total                  | 10,94,850 | Total | 10,94,850 |
|  | <p>Additional information :</p> <p>(i) Closing stock on 31-3-2019 was 1,80,000.</p> <p>(ii) Depreciate Plant and Machinery at 5 %, Loose tools at 15 %, and Furniture and fittings at 5 %.</p> <p>(iii) Provide 5 % for Bad and Doubtful Debts.</p> <p>(iv) Outstanding wages 4,500 and Rent and Taxes 2,550.</p> |                        |           |       |           |

| UNIVERSITY OF CALICUT                                   |  |                   |       |
|---|--|-------------------|-------|
| FIRST SEMESTER MBA HCM DEGREE EXAMINATION, JANUARY 2025 |  |                   |       |
| Course Code:BUS HCM S1 08                               |  |                   |       |
| Course Name:HEALTHCARE ECONOMICS                        |  |                   |       |
| Max. Marks: 60  |  | Duration: 3 Hours |       |
|   |  |                   |       |
| PART A  |  |                   |       |
|   | <i>Answer all questions, each carries 2 marks.</i>                                 |                   |       |
|   |  |                   | Marks |
| 1   | Define law of demand.  |                   | (2)   |
| 2   | Define opportunity cost.   |                   | (2)   |
| 3   | Define health.   |                   | (2)   |
| 4   | What is an iso-cost line?  |                   | (2)   |
| 5   | Give the full form of AYUSH.   |                   | (2)   |
| PART B  |  |                   |       |
|   | <i>Answer any FOUR questions from this section. Each question carries 4 marks.</i> |                   |       |
| 6   | Write a note on NRHM.  |                   | (4)   |
| 7   | Write a note on Break-Even Analysis.   |                   | (4)   |
| 8   | Health is both a consumer and investment good. Examine.                            |                   | (4)   |
| 9   | What are the features of monopolistic competition?                                 |                   | (4)   |
| 10  | Define externality. Give two examples of externalities in health care system.      |                   |       |
| 11  | What are the characteristics of health care markets?                               |                   |       |

| PART C   |   |      |
|--|---|------|
| <i>Answer any THREE questions from this section. Each question carries 8 marks</i> |   |      |
| 12   | What are the indices of human development?  | (8)  |
| 13   | What are the different health care indicators?  | (8)  |
| 14   | Explain the law of variable proportions.  | (8)  |
| 15   | Explain the various demand determinants of health care markets  | (8)  |
| 16   | What are the reasons for market failure? How Government can interfere in it?  | (8)  |
| <b>PART D (Compulsory Question, 10 marks)</b>                                      |   |      |
| 17   | What are the features of perfect competition? Explain the equilibrium price and output determination under perfect competition. | (10) |

|  |  |                   |
|--|--|-------------------|
| <b>SET XX</b>  |  |                   |
| <b>UNIVERSITY OF CALICUT</b>   |  |                   |
| ..... SEMESTER MBA HCM DEGREE EXAMINATION, MONTH, YEAR                             |  |                   |
| <b>Course Code: .....</b>  |  |                   |
| <b>Course Name: .....</b>  |  |                   |
| Max. Marks: 60   |  | Duration: 3 Hours |
|  |  |                   |
| <b>PART A</b>  |  |                   |
|  | <i>Answer all questions, each carries 2 marks.</i> | Marks             |
| 1  |  | (2)               |
| 2  |  | (2)               |
| 3  |  | (2)               |
| 4  |  | (2)               |
| 5  |  | (2)               |
| <b>PART B</b>  |  |                   |
| <i>Answer any FOUR questions from this section. Each question carries 4 marks.</i> |  |                   |
| 6  |  | (4)               |
| 7  |  | (4)               |
| 8  |  | (4)               |
| 9  |  | (4)               |
| 10   |  | (4)               |
| 11   |  | (4)               |
| <b>PART C</b>  |  |                   |
| <i>Answer any THREE questions from this section. Each question carries 8 marks</i> |  |                   |

|   |  |  |      |
|---|--|--|------|
| 12  |  |  | (8)  |
| 13  |  |  | (8)  |
| 14  |  |  | (8)  |
| 15  |  |  | (8)  |
| 16  |  |  | (8)  |
| <b>PART D (Compulsory Question, 10 marks)</b> |  |  |      |
| 17  |  |  | (10) |

|  |  |                   |       |
|--|--|-------------------|-------|
| <b>SET XX</b>  |  |                   |       |
| <b>Scheme of Valuation/Answer Key</b>  |  |                   |       |
| (Scheme of evaluation (marks in brackets) and answers of problems/key)             |  |                   |       |
| <b>UNIVERSITY OF CALICUT</b>   |  |                   |       |
| ..... SEMESTER MBA HCM DEGREE EXAMINATION, MONTH, YEAR                             |  |                   |       |
| <b>Course Code: .....</b>  |  |                   |       |
| <b>Course Name: .....</b>  |  |                   |       |
| Max. Marks: 60   |  | Duration: 3 Hours |       |
|  |  |                   |       |
| <b>PART A</b>  |  |                   |       |
|  | <b>Answer all questions, each carries 2 marks.</b> |                   | Marks |
| 1  |  |                   | (2)   |
| 2  |  |                   | (2)   |
| 3  |  |                   | (2)   |
| 4  |  |                   | (2)   |
| 5  |  |                   | (2)   |
| <b>PART B</b>  |  |                   |       |
| <b>Answer any FOUR questions from this section. Each question carries 4 marks.</b> |  |                   |       |
| 6  |  |                   | (4)   |
| 7  |  |                   | (4)   |
| 8  |  |                   | (4)   |
| 9  |  |                   | (4)   |

|  |  |  |      |
|--|--|--|------|
| 10   |  |  | (4)  |
| 11   |  |  | (4)  |
| <b>PART C</b>  |  |  |      |
| <i>Answer any THREE questions from this section. Each question carries 8 marks</i> |  |  |      |
| 12   |  |  | (8)  |
| 13   |  |  | (8)  |
| 14   |  |  | (8)  |
| 15   |  |  | (8)  |
| 16   |  |  | (8)  |
| <b>PART D (Compulsory Question)</b>  |  |  |      |
| 17   |  |  | (10) |