

# GUJARAT TECHNOLOGICAL UNIVERSITY

BE- SEMESTER- VII EXAMINATION – SUMMER 2026

Subject Code:3170316

Date:20-05-2026

Subject Name: Hospital Management and Clinical Technology

Time:02:30 PM TO 05:00 PM

Total Marks:70

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

|     |                                                                                                                                              | MARKS |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------|-------|
| Q.1 | (a) Explain the concept of Management.                                                                                                       | 03    |
|     | (b) Enlist various factors responsible for the development of a hospital.                                                                    | 04    |
|     | (c) Broadly classify hospital based on various factors.                                                                                      | 07    |
| Q.2 | (a) Write challenges in Hospital administration.                                                                                             | 03    |
|     | (b) Give differences between a hospital and an industry.                                                                                     | 04    |
|     | (c) Explain components and steps of planning a hospital.                                                                                     | 07    |
|     | OR                                                                                                                                           |       |
|     | (c) Explain recent trends in hospital planning and designing in the world.                                                                   | 07    |
| Q.3 | (a) Give roles and responsibility of a biomedical engineer in a hospital.                                                                    | 03    |
|     | (b) Enlist Basic Minimum requirements of a 30 bedded hospital.                                                                               | 04    |
|     | (c) Write a note on Human Resource Information System.                                                                                       | 07    |
|     | OR                                                                                                                                           |       |
| Q.3 | (a) What are objectives of Human Resource Management (HRM) in a hospital?                                                                    | 03    |
|     | (b) Explain standard biomedical waste rules.                                                                                                 | 04    |
|     | (c) Explain the importance of Medical Audit. Write its Protocols.                                                                            | 07    |
| Q.4 | (a) What are various types of wastes?                                                                                                        | 03    |
|     | (b) Explain the importance of 'Nightingale Ward' in a hospital.                                                                              | 04    |
|     | (c) Draw & Explain flow chart of Outpatient Department (OPD). Enlist common problems arising in Outpatient Department. How can it be solved? | 07    |
|     | OR                                                                                                                                           |       |
| Q.4 | (a) How to determine nursing staff requirements in a hospital?                                                                               | 03    |
|     | (b) Describe the process of thermal treatment and incineration of biomedical waste.                                                          | 04    |
|     | (c) Explain planning & organization of an Intensive Care Unit (ICU).                                                                         | 07    |
| Q.5 | (a) Give definitions of Clinical Engineering & Biomedical Engineering.                                                                       | 03    |
|     | (b) Describe safety rules of a hospital.                                                                                                     | 04    |

- (c) Explain the functions of Laboratory services, Blood Bank and Central sterile supply department (CSSD) in a hospital. **07**

**OR**

- Q.5** (a) Explain international standards of ISO 9000 series. **03**  
(b) Write a note on equipment planning in a hospital. **04**  
(c) Broadly explain role and functions of Nursing services in a hospital. **07**

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