

Reg.No.:



VIVEKANANDHA COLLEGE OF ENGINEERING FOR WOMEN  
[AUTONOMOUS INSTITUTION AFFILIATED TO ANNA UNIVERSITY, CHENNAI]  
Elayampalayam – 637 205, Tiruchengode, Namakkal Dt., Tamil Nadu.

**Question Paper Code: 12008**

B.E. / B.Tech. DEGREE END-SEMESTER EXAMINATIONS – MAY / JUNE 2024

Sixth Semester

Electronics and Communication Engineering

U19BMOE5 - HEALTHCARE MANAGEMENT SYSTEMS

(Common to IT & BT)

(Regulation 2019)

Time: Three Hours

Maximum: 100 Marks

Answer ALL the questions

Knowledge Levels (KL)	K1 – Remembering	K3 – Applying	K5 - Evaluating
	K2 – Understanding	K4 – Analyzing	K6 - Creating

PART – A

(10 x 2 = 20 Marks)

Q.No.	Questions	Marks	KL	CO
1.	What are the various roles played by hospitals in the healthcare sector?	2	K1	CO1
2.	How do we differentiate between depreciable and non-depreciable equipment?	2	K2	CO1
3.	What are the procedures followed for the retention of the staffs by the hospital management?	2	K1	CO2
4.	Justify the need for the training and evaluation of the staff members.	2	K3	CO2
5.	Mention the regulations that the hospital abides by regarding the storage of medical records.	2	K1	CO3
6.	List the essential principles that every manager in hospital should adhere to.	2	K1	CO3
7.	Mention the key functions and responsibilities of the Clinical Engineering Department within a hospital setting.	2	K2	CO4
8.	List the importance of calibration and preventive maintenance for medical equipment in healthcare facilities.	2	K2	CO4
9.	What measures are implemented in hospitals to ensure safety and prevent loss through security and loss prevention programs?	2	K1	CO5
10.	What is meant by safety in a hospital?	2	K2	CO5

PART – B

(5 x 13 = 65 Marks)

Q.No.	Questions	Marks	KL	CO
11.	a) What are the various stages involved in planning and constructing a new hospital? Discuss the guiding principles for planning hospital facilities and services. (OR)	13	K3	CO1
	b) What is the significance of engineering in equipment planning and procurement? Discuss the specifications and guidelines involved in purchasing hospital equipment.	13	K3	CO1
12.	a) Explain the organizational and managerial frameworks within hospitals. (OR)	13	K2	CO2
	b) Elaborate the framework involved in the process of employee recruitment, selection and training in various departments of a hospital. Identify the challenges faced in each stage.	13	K3	CO2
13.	a) Detail the primary modules of a hospital information system. (OR)	13	K3	CO3
	b) What are the objectives, functions, and considerations in the location and design of a central sterilization and supply department within a hospital?	13	K3	CO3
14.	a) How does the air conditioning system in hospitals differ from those in other buildings? What are the specific design criteria and considerations for air conditioning systems in hospital settings? (OR)	13	K3	CO4
	b) What are the key components of a centralized medical gas system, and what benefits does it provide in a healthcare environment? Additionally, elaborate on the precautions and controls necessary for its safe operation.	13	K3	CO4
15.	a) Enumerate the components and describe the operation of fire safety alarm systems utilized within hospital environments. (OR)	13	K2	CO5
	b) How do hospitals manage disasters effectively, and what are the key components of their disaster management plans?	13	K3	CO5

PART – C

Q.No.	Questions	(1 x 15 = 15 Marks)		
		Marks	KL	CO
16. a)	Illustrate the impact of implementing outpatient services in a hospital setting on patient satisfaction, care delivery efficiency, and overall healthcare outcomes using a specific example.	15	K4	CO3
	(OR)			
b)	How does the design and maintenance of water supply and sanitary systems in hospitals affect patient safety, infection control measures, and overall operational efficiency?	15	K4	CO4