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

Question Paper Code: 12001

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

Eighth Semester

Biomedical Engineering

U19BME42 – HOSPITAL MANAGEMENT

(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.	Compare the administration protocols between hospitals and the Industry.	2	K2	CO1
2.	Expand AMC and Justify the need for it in hospitals.	2	K2	CO1
3.	List the responsibilities of HRD Manager.	2	K2	CO2
4.	What is promotion and transfer? How are they connected in both positive and negative aspects?	2	K2	CO2
5.	What is marketing information systems? Give its significance.	2	K2	CO3
6.	Differentiate consumer market and consumer buying behavior.	2	K1	CO3
7.	Identify the equipments used in the central sterilization department.	2	K3	CO4
8.	Mention the materials that are used in the laundry services of the hospital.	2	K3	CO4
9.	List out the features of ISO 13485.	2	K2	CO5
10.	Outline the fire safety codes that are in place at the hospital.	2	K2	CO5

PART – B

(5 x 13 = 65 Marks)

Q.No.	Questions	Marks	KL	CO
11.	a) Examine the challenges encountered during the Administration of hospital, equipment and functional planning in healthcare.	13	K4	CO1
	(OR)			
	b) Categorize the biomedical waste generated. Illustrate how biomedical waste is disposed of implementing various techniques in the hospital environment.	13	K4	CO1
12.	a) Discuss the principles and methods followed for employment recruitment, selection and retention.	13	K3	CO2
	(OR)			
	b) Explain the different training guidelines, types of training and its evaluation carried for the employees at different departments of hospital.	13	K3	CO2
13.	a) Describe the model of buying decision behavior and its process. Also comment about the types of buying decision behavior.	13	K3	CO3
	(OR)			
	b) Explain how the marketing information is assessed, developed and disseminated. Elaborate about the market research process of health information systems.	13	K4	CO3
14.	a) Discuss the role of clinical information systems in improving patient care quality, safety & outcomes. Provide examples to support your argument.	13	K3	CO4
	(OR)			
	b) Describe how Hospital Information System, m-health initiatives and Electronic Health Record Management can be used effectively in a modern hospital.	13	K3	CO4
15.	a) Describe the elements of NABA, NABL, NABH quality control standards implemented in healthcare industry.	13	K3	CO5
	(OR)			
	b) Explain the medical insurance and safety rules followed in patient care and safety in the healthcare field.	13	K3	CO5

PART – C

(1 x 15 = 15 Marks)

Q.No.	Questions	Marks	KL	CO
16. a)	Analyze the following case and suggest a queuing method to improve the outpatient registration service	15	K3	CO1

A—One Surgical Hospital specializes in general surgery. It has 110 beds, 5 OTs working for 12 hours per day in two shifts: 6 am to 12 noon and 1 pm to 7 pm, Monday through Saturday. A team of 11 surgeons and 2 anesthetists is ably supported by other OT staff. Any surgeon can perform any general surgery, which takes an average of 2 hours including pre- and post-operative services. On any given day, one out of the 11 surgeons (on rotation) would be doing administrative duties, while the remaining 10 surgeons would be busy with clinical work, 6 hours in OT (either in the morning shift or the after- noon shift), one hour lunch break, and 3 hours doing OPD and ward visits.

Patients are admitted one day before the date of the planned surgery, Monday through Friday and Sunday. No admission is entertained on Saturdays since OTs remain closed on Sundays. Upon arrival at the hospital between 1 pm and 5 pm (Monday through Friday and Sunday), each surgical patient first goes through the process of admission, which consists of registration, an advance payment for hospital services and is allotted a bed. One of the two hospital receptionists assists the patients with their admission process which takes about 12 minutes per patient, including taking the patient to his/her room.

After the patient is admitted, one of the four doctors on duty examines the patient, makes a case sheet, orders some investigations and medications, all of which take about 30 minutes per patient. Examinations are done between 2 pm and 6 pm.

Following the examination, the nursing station takes the responsibility for arranging medications and sample collection for investigations. 3 nurses are dedicated to this activity from 3 pm to 6 pm; each nurse can take care of 4 patients an hour. The morning after admission, the patient is taken to an OT room for surgery which takes about 2 hours, including pre- and post-surgical procedures. After the surgery, the patient is taken back to his/her bed, health conditions are monitored for the next two days and, if satisfied, the surgeon orders patient discharge the following day.

The average length of stay in the hospital for a surgical patient is 4 days. The hospital has a long waiting list of patients, and is, therefore, exploring options to augment its resources. As a management consultant to the A—One Hospital, what are your recommendations?

(OR)

- b) Examine the importance of performance management systems in promoting employee productivity and accountability with in hospital settings. Provide example of effective performance management practices. 15 K4 CO2