

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

School of Business

Master of Business Administration MBA Dual Specialization
Mid Term Examination - Mar 2024

Duration : 90 Minutes
Max Marks : 50

Sem IV - MBHC6004 - Hospital Hazards and Waste Management

General Instructions

Answer to the specific question asked

Draw neat, labelled diagrams wherever necessary

Approved data hand books are allowed subject to verification by the Invigilator

- 1) Explain the importance of COVID 19 vaccination for nurses posted in the isolation unit in a hospital. K5 (5)
- 2) You have been appointed as Facility Management Services Consultant for Apex Multispeciality hospital, Ghaziabad for Facility rounds for upcoming NABH pre assessment. Apply your understanding of hospital safety protocols and risk management to describe the concept of physical hazards in the hospitals to the COO of Apex Multispeciality hospital. K3 (6)
- 3) Noise pollution in hospitals is a significant yet often overlooked problem that can have detrimental effects on patient health and well-being. Goyal Hospital is a tertiary care hospital located in a bustling metropolitan city of Mumbai. The hospital serves a diverse patient population and offers a wide range of medical services, including emergency care, surgery, and specialized treatments. Despite its reputation for providing high-quality healthcare, the hospital has been grappling with noise pollution issues due to various factors such as overcrowding, outdated infrastructure, and inadequate noise control measures. K4 (8)
Questions :
 - a) Assume the role of the hospital administrator and develop a noise control protocols for Goyal Hospital that addresses the underlying causes of noise pollution. (3 marks)
 - b) How does noise pollution impact patient health and well-being in a hospital setting, (2 marks)
 - c) How can Goyal Hospital effectively engage with community stakeholders to address external sources of noise pollution (3 marks)

K3 (9)

- 4) Manav Hospital was established in 1980 in the centre of the city Ghaziabad. From general eye care to comprehensive healthcare, they are a multi-specialty hospital consistently ranked at the top as one of the best hospitals in the Delhi-NCR. Manav Hospital is equipped with modern medical equipment to ensure high-quality patient care. In July 2023, the hospital experienced a series of incidents related to medical equipment hazards, highlighting systemic issues that needed urgent attention. During a routine surgery in the operating theater, an infusion pump malfunctioned, causing an incorrect dosage of medication to be administered to the patient. Following a laparoscopic procedure, a patient developed a surgical site infection. Investigation revealed that the infection was likely due to inadequate sterilization of the laparoscopic instruments. It was found that the autoclave used for sterilization was not functioning optimally, leading to incomplete sterilization of the equipment.

Questions :

- a) How would you apply the principles of preventive maintenance to ensure the proper functioning of medical equipment? (3 marks)
- b) What measures could be implemented to improve the sterilization process of laparoscopic instruments? (3 marks)
- c) How would you apply quality control measures to ensure the procurement of reliable medical equipment? (3 marks)

K5 (10)

- 5) In a bustling government hospital, the nursing staffs are essential for maintaining the round-the-clock care required by patients. However, the nature of their work often involves irregular and demanding shift schedules, which can have significant impacts on their health. Consider the case of Rina, a dedicated nurse in her mid-thirties working in the hospital's intensive care unit (ICU). Rina is often assigned to night shifts, where she must remain alert and responsive to emergencies throughout the wee hours of the morning. The constant rotation between day, evening, and night shifts disrupts her circadian rhythm, making it difficult for her to establish a regular sleep pattern. Unfortunately, Rina's situation is not unique. Many of her colleagues in the nursing staff face similar challenges, leading to a high prevalence of burnout and turnover in the hospital. The management recognizes the detrimental effects of shift work on the health and well-being of their staff but struggles to find a viable solution due to budget constraints and staffing shortages.

Questions :

- a) Evaluate the potential long-term health consequences of irregular and demanding shift schedules on nursing staff like Rina in the ICU. (5 marks)
- b) Evaluate the feasibility of implementing a rotating shift system versus a fixed shift system in the ICU to mitigate the negative effects of irregular shift schedules on nursing staff. (5 marks)

6) Rita, a housekeeping staff member at a busy Indian hospital, was tasked with cleaning the rooms of discharged patients on a particularly hectic day. As she swiftly moved from one room to another, she encountered a used syringe carelessly left on the bedside table in one of the rooms. Without proper training on handling hazardous materials, Rita instinctively picked up the syringe to dispose of it in the regular waste bin.

Unbeknownst to Rita, the syringe had a needlestick injury and was contaminated with blood from a patient known to be positive for Hepatitis B. In her haste and lack of awareness, she accidentally pricked her finger with the needle while attempting to dispose of it. Unfortunately, Rita's symptoms worsened due to the NSI, and she eventually sought medical help. Tests revealed that she had contracted Hepatitis B from the needlestick injury. Rita's failure to report the incident promptly and seek appropriate medical care not only jeopardized her own health but also posed a risk to others she came into contact with during her work in the hospital.

Questions:

- a) How would you design a comprehensive training program for hospital staff members on the proper handling and disposal of hazardous materials? (4 marks)
- b) How would you create an incident reporting system within the hospital to ensure prompt reporting of needlestick injuries and other hazardous incidents? (4 marks)
- c) How would you evaluate the effectiveness of the hospital's current safety protocols and procedures in preventing needlestick injuries? (4 marks)