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UNIVERSITY EXAMINATIONS 2023/2024

THIRD YEAR SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR
OF SCIENCE IN HEALTH SYSTEM MANAGEMENT

NNH 3351: HEALTHCARE OPERATIONS AND LOGISTICS MANAGEMENT

DATE: APRIL 2024

TIME: 2 HOURS

INSTRUCTIONS: ANSWER QUESTION ONE AND ANY OTHER TWO

QUESTION ONE (30 MARKS)

- Explain the concept of an operating system and its relationship to operations management. (2 Marks)
- Summarize four strategies used in health systems capacity planning. (4 Marks)
- Differentiate between supply chain management and logistics management (4 Marks)
- Outline five factors influencing product design in healthcare industries. (5 Marks)
- State five objectives of inventory management in hospitals. (5 Marks)
- Prepare a list of five common commodities found in health care. (5 Marks)
- State five benefits of effective resource allocation in healthcare. (5 Marks)

QUESTIONS TWO (20 MARKS)

Operations management is critical in every industry, and healthcare is no exception. At its core, operations management is the planning, organizing, and supervising of internal processes to keep an organization running smoothly.

In the ever-changing healthcare industry, effective operations management is not an option, but a necessity. Without it, it's difficult for a hospital, residential facility, nursing home, doctor's office, or home healthcare organization to provide the quality care services that improve and save lives.

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MUST is ISO 9001:2015 and



ISO/IEC 27001:2013 CERTIFIED

- a) Describe five current and future trends in health care operations and logistics management. (10 Marks)
- b) Explain five reasons why you would consider outsourcing for material management processes in a hospital. (10 Marks)

QUESTION THREE(20MARKS)

In healthcare, managing the supply chain is typically a very complex and fragmented process. Recent supply shortages as a result of the COVID-19 pandemic and other viruses have exacerbated these challenges, making it more difficult for providers to procure the items they need for high-quality care at an affordable price. However, by promoting efficiency in the healthcare supply chain, hospitals and physician practices can create substantial cost-reducing opportunities across their organization. Using the example of COVID-19 pandemic, answer the following questions.

- a) Describe five stages in inventory management process used by hospitals in Kenya. (10Marks)
- b) Describe five supply chain models used in healthcare. (10 Marks)

QUESTION FOUR (20MARKS)

Human error is inevitable and it is estimated that around 98,000 to 400,000 medical errors have occurred in hospitals in Kenya since 1990. Therefore, the solution is pharmacy workflow automation. This is because of the intuitive belief that increased use of automation and technology in the medication use process increases patient safety and reduces pharmacy errors.

- a) In order to improve pharmacy workflow, describe five steps in a pharmacy dispensing workflow process that are automated to solve those problems. (10 Marks)
- b) Explain five issues you will consider before implementing pharmacy workflow system in any hospital in Kenya. (10 Marks).

