



School of Pharmaceutical Management

MBA Pharmaceutical Management

Batch-14th (2022-2024)

Second Year, Term 4 End Term Examination, September 2023

PHRM-709 Management Information System

Time - 3 Hour

Maximum Marks: 50 (Minimum Marks: 20)

Instructions to students:

- This question paper contains 2 printed pages.
- Don't write anything on the Question Paper except writing your Enrolment No.

Part A

(Maximum Marks: 5)

Q1. Fill in the blanks:

(5 x 1 = 5)

- Information systems provide key applications for enhancing _____ at different organizational levels.
- Information technology infrastructure support managerial decision-making. It involves _____ technologies.
- Knowledge Management System play role within an organization. It facilitates the organization's ability to capture, store, and disseminate _____.
- A Management Information System focuses on routine operational reports, while a Decision Support System aids in _____.
- Transaction Processing System is responsible for _____.

Part B

(Maximum Marks: 15)

Answer the following questions in brief.

(3 x 5 = 15)

- Q2. Explain Supplier Relationship Management (SRM) and its need in a organization. What is the need of IT in managing SRM.
- Q3. Describe about Enterprise Resource Planning (ERP), list benefits of implementing an ERP system.
- Q4. How do Information Systems contribute to achieving strategic advantage?

Part C**(Maximum Marks: 30)****Answer the question, below, based on case:**

The country of Zelandia faces a significant health challenge with an alarming rate of non-communicable diseases (NCDs). Statistics reveal that more than 30% of the population suffers from diabetes, hypertension, and cardiovascular diseases, making Zelandia one of the highest NCD-burdened nations globally. Despite the gravity of the situation, the healthcare system has been struggling to provide effective care due to several operational issues.

Historically, Zelandia's healthcare supply chain has encountered major hurdles in ensuring a consistent flow of essential medicines for NCD management. Long lead times for medicine procurement, improper stock management practices leading to medicine expiration, and a lack of an efficient logistics management information system (LMIS) have hindered the smooth functioning of the healthcare system.

Addressing this crisis, the Ministry of Health, in collaboration with a global health organization funded by an international development agency, embarked on a transformative journey. This partnership aimed to overhaul the NCD healthcare supply chain through the implementation of an effective LMIS. The primary focus was on streamlining the supply of critical medicines for NCDs, ensuring that patients have uninterrupted access to life-saving treatments.

Under the guidance of the international agency, the Zelandian healthcare authorities initiated the redesign of the LMIS in 2012. The aim was to establish a reliable link between medical facilities and the central medical store to minimize inventory fluctuations. To enhance reporting accuracy and facilitate requisitions, standardized reporting tools were designed, distributed, and employed across the country's healthcare network.

Through comprehensive training initiatives, over 300 healthcare personnel were educated on the proper use of the LMIS tools. Additionally, a progressive web-based commodity tracking system (CTS) was designed, tested, and integrated, accommodating data for laboratory, NCD, and family planning products. The new system allowed real-time monitoring of medicine availability, enabling rapid response to shortages and an accurate national forecast and supply plan.

The results have been transformative. Reporting rates soared from a meager 56% to a remarkable 97%, and order fill rates reached 100% for essential NCD medicines. The introduced LMIS empowered the Ministry of Health to make informed decisions, resulting in a significant \$6.25 million cost savings by averting unnecessary procurements. Zelandia's journey serves as a testament to how an effective LMIS can turn the tide against NCDs, ensuring access to vital medicines and optimizing resource utilization in the fight against these devastating health challenges.

Q5. Provide examples for the pillars of MIS from this case. (10)

Q6. What changes were made to the existing LMIS during the redesign phase? (10)

Q7. What were the immediate positive outcomes of implementing the LMIS and CTS? (10)