International Institute of Health Management Research (IIHMR)
NEW DELHI
HOM 709 Hospital Information Management System
Batch- 2018- 2020
Term Exam

TOTAL TIME: 3.0 HOURS **MAXIMUM MARKS: 70**

Read the following case and answer the questions provided.

1. Background

The Client: a 350 - beds multispecialty hospital in Cochin, serving more than 800 out patients per day.

The Need: The client hospital has always had a commitment to quality with a strong infrastructure in place to support improvement efforts. However, it did not have a systemic way to make sense of all the information that can contribute to improved quality and reduced waiting times. The hospital management recognized that the information it needed for improvements was buried in a pile of paperwork, which it couldn't possibly keep up with. Their existing MRD area (2000 square feet area) where they kept their medical records exceeded the space limit and they couldn't afford to find an additional space for keeping new records. 200000 medical records were required to be scanned prior to EMR implementation.

Management wasn't receiving any information on the percentage of prescriptions realized in Pharmacy.

Patient records never reached Doctor's consultation rooms on time. Sometimes it took almost one hour or more to get these files from MRD. Most of the times doctors moved on to the next patient after wasting considerable time waiting for a record. This has created issues in patient token sequences leading to patient disputes and dissatisfaction. Lab results, though ready on time, would not reach the doctors' room before the morning consultation ends. This has caused delayed diagnosis and treatment decisions, leading to patients waiting till the evening session to get their prescriptions. No control or tracking system for reagents used in the Laboratory. No stock record or control over the consumables used in nursing stations and operating theatres. Expired medicines in nursing stations caused financial loss to the hospital. In the previous year, INR 6 million worth medicines were written off, because there was no system to trace the list of medicines that were reaching the expiry. Hospital Pharmacy stores witnessed hectic patient traffic. Long queues and endless waiting led to frustrated people going out to local pharmacy shops to purchase their medicines.

The client wanted to find a way to decrease the delay that occurred between an event and the actions taken to prevent future events. The following outcomes are expected with the same human resources, facilities, space and time.

- Consistency and Improved Quality in Patient Care
- Remarkable Cost Reduction in Multiple Areas
- Tremendous Increase in Profit Levels in Multiple Areas
- Elimination of Pharmacy Pilferages & Wastage
- Reduced Storage Space Consumption
- Increased Communication Between Departments and Employees
- Reduced Possibility of Human Errors
- Avoidance of Costly Medical Mistakes
- Faster Services and Improved Patient Satisfaction
- Efficient Systems and Increased Capability to Handle More Patients

Based on the above answer the following questions:

1. Perform a gap analysis of the existing situation. 15 marks
2. Considering the outcomes expected design an information system model identifying the strategic, tactical and operational decisions to be taken. 15 marks
3. Design an integrated information system that will overcome the gaps and increase the profit. 30 marks
4. What will be the strategy to be adopted for successful implementation of the system? 15 marks