POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSC (BIOMEDICAL INFORMATICS) END OF SEMESTER III
EXAMINATION – MARCH 2020

Date:- 6ᵗʰ March 2020   **Time:-** 1.30 p.m. - 3.00 p.m.

SEQ PAPER

Answer **all three (03)** questions.
Answer each part in a separate book.

Part A – Module 11 – Management

1.

1.1. What is meant by the term leadership?   (10 marks)

1.2. Compare and contrast 'transactional leadership' with transformational leadership.   (40 marks)

1.3. Briefly discuss the definition and underlying principles/elements of 'organizing' and how you would apply it to reorganise the health information unit in your hospital.   (50 marks)

Part B – Module 13 – Medical Data and Information Management

2. Sri Lanka's health system is dominated by the state health sector. Lately the contribution from the private health sector is growing and is expected to grow further. Hence the changes in healthcare delivery by diverse players pose a real challenge to the health informatician who is responsible for ensuring that each citizen has a comprehensive birth to death longitudinal health record.

2.1. Briefly outline the point of service components in the above context across public and private sectors highlighting the need for a health information exchange.   (25 marks)

2.2. Outline the mechanism through which a person, a care provider, and a health care facility are uniquely identified in the openHIS approach in the heath information exchange.   (35 marks)

2.3. Briefly outline the possible barriers and strategies to overcome them in implementing a health information exchange to provide seamless integration/flow of information across all points of services.   (40 marks)

Pact C – Module 14 – Disease Surveillance and IT for Population Genomics

3.

3.1. The electronic Reproductive Health Management Information System (eRHIMS) is a systems developed to support the Maternal and Child Health Programme of the Ministry of Health.

   3.1.1. What are the components of the eRHIMS system? (20 marks)

   3.1.2. Define disease surveillance and describe how the eRHIMS enables surveillance of maternal and child health morbidity and mortality. (30 marks)

3.2. Discuss the importance of genomics, big data analytics and artificial intelligence in disease surveillance during the current COVID-19 outbreak. (50 marks)