POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (BIOMEDICAL INFORMATICS) END SEMESTER III EXAMINATION
AUGUST 2022

Date: 16th August 2022   **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. The Ministry of Health in Sri Lanka has decided to integrate all Health Information Management Systems (HIMS) maintained by individual hospitals **into one main system** for the entire healthcare sector in Sri Lanka, including all the private (ministry approved) and public hospitals. The Ministry of Health has appointed a panel of consultants to manage this project. You are one of the consultants on the panel.

    1.1. Apply the PESTEL and SWOT analysis in order to identify the factors affecting this project.   (50 marks)

    1.2. Describe suitable **management processes** and their application to make this project successful and acceptable to everyone.   (50 marks)

Part B: Module 13 - Medical data and information management

2.

    2.1. Describe the term 'Global Patient Set' (GPS).   (20 marks)

    2.2. Discuss the importance of the Global Patient Set for a low-resource country.
                                                                                (30 marks)

    2.3. Discuss the main GPS concepts that established the SNOMED international reference sets.   (50 marks)

Part C: Module 14 - Disease surveillance and IT for population genome

3.

    3.1. Compare and contrast active and passive surveillance.   (20 marks)

    3.2. Briefly describe **three (03)** applications of genomics in medicine.

                                              (30 marks)

    3.3. Discuss factors to be considered in implementing a population screening programme based on genetic testing.   (50 marks)