# POSTGRADUATE INSTITUTE OF MEDICINE

## UNIVERSITY OF COLOMBO

### MSc (BIOMEDICAL INFORMATICS) END OF SEMESTER II
### EXAMINATION – OCTOBER 2018

Date : 30th October 2018          Time : 1.00 p.m. – 2.30 p.m.

### SEQ PAPER

Answer all questions.

Answer each part in a separate book.

## Question 1

### Module 6 – Basic Epidemiology and Statistics

Epidemiology is the study of the distribution and determinants of health related states and events in specified populations, and the application to the control of health problems.

1.1.    Match following terms (a, b & c) with relevant activities (I, II & III) with a brief explanation.            (50 marks)

| Terms |
| --- |
| (a) Distribution<br>(b) Determinants<br>(c) Application |

| Activities |
| --- |
| I.   Compare frequency of brain cancer among anatomists with frequency in general population |
| II.   Mark on a map the residences of all children born with birth defects within 2 km of a hazardous waste site |
| III.   Graph the number of cases of congenital syphilis by year for the country |

1.2     Write a short note on central tendency.           (30 marks)

1.3     Mean marks of 80 students were found to be 68. Later it was found that a score of 79 was misread as 97. Calculate the correct mean.        (20 marks)

## Question 2

### Module 8 – Public Health Informatics

The Public Health Division of the Ministry of Health is planning to implement a Health Management Information System.

2.1.    Briefly explain how you assess a Health Management Information System as a Health Informatician working in the above Division.

(100 marks)

## Question 3

### Module 9 – Bioinformatics

Genomic information available through online databases and tools are useful for actionable clinical care.

3.1    Briefly discuss uses of above databases in the current practice of health care.

(100 marks)