

Master Copy

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (BIOMEDICAL INFORMATICS) END OF SEMESTER II
EXAMINATION – AUGUST 2017

Date: 1st August 2017

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

- 1.1 List five (05) essential services of public health. (15 marks)
- 1.2 Briefly describe two (02) of the services you listed in 1.1. (20 marks)
- 1.3 List four (04) properties of a Normal Gaussian Curve. (20 marks)
- 1.4 Indicate the scale of measurements for the following variables. (15 marks)
 - a) Length of the ring finger
 - b) Hair colour
 - c) Grades of your exam results
 - d) Temperature in Fahrenheit
 - e) Weight
- 1.5 Mean weight of a large population of individuals is 78.6Kg and the standard deviation is 7.8Kg.
 - a) What is the main assumption that has been made in this scenario? (10 marks)
 - b) What is the weight that is exceeded by 2.5% of the population? (20 marks)

Question 2**Module 8 - Public Health Informatics**

- 2.1 Briefly discuss the challenges pertaining to the implementation of electronic public health information systems in Sri Lanka. (50 marks)
- 2.2 Inter-operability is considered to be of paramount importance in terms of public health information systems. Explain inter-operability in terms of health information systems and the role played by standards in relation to inter-operability. (50 marks)

Question 3**Module 9 – Bioinformatics**

- 3.1 Define a “primary biological database”. (10 marks)
- 3.2 Name a primary biological database commonly used by scientists and describe the information that can be obtained by searching it. (30 marks)
- 3.3 Compare and contrast information extraction software against manual curation in relation to populating a biomedical database. (60 marks)