

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

SELECTION EXAMINATION FOR MD IN HEALTH INFORMATICS –
OCTOBER 2017

Date :- 30th October 2017

Time :- 9.00 a.m. – 11.00 a.m.

STRUCTURED ESSAY QUESTIONS

PAPER I

INFORMATION & COMMUNICATION TECHNOLOGY

Answer all four (04) questions.

Answer each question in a separate book.

1.

1.1. The concept of “continued care pathway” is an important concept in designing primary care information systems. Provide an answer describing how you would incorporate the above concept in designing a primary care information system in Sri Lanka. In your answer describe how you would incorporate elements of first contact, referral, notification, and provision of data to relevant National Health Information Systems (Example: electronic Morbidity and Mortality Reporting System [eIMMR]). (70 marks)

1.2. List advantages and disadvantages in using a Clinical Decision Support System in clinical practice. (30 marks)

2.

2.1. When data is captured in the field by field health staff (Example: Public Health Midwives) using mobile devices, it is important to ensure the quality of data by improving compliance in data entry. Provide an answer describing how you would improve compliance in mobile data capture among field health staff. In your answer describe issues related to data/subscription, interface, system reliability, data use, and positive reinforcements/appraisal. (70 marks)

2.2. Describe the challenges that you see in ensuring the sustainability of field level electronic data capture systems. (30 marks)

Contd...../2-

3.

3.1. Security and confidentiality issues are very important in implementing Electronic Medical Record (EMR) solutions. Provide an answer describing these issues in relation to implementing Cloud based EMRs.

(50 marks)

3.2. Discuss the role of the Personal Health Number (PHN) in the National Digital Health ecosystem.

(50 marks)

4.

4.1. Open Source software is increasingly being used in the health sectors of developing countries. Provide and answer discussing the issues that you have to consider when adopting Open Source solutions in the health sector.

(60 marks)

4.2. Describe a rational approach to integrate DHIS2 instances implemented in different public health programmes facilitating “integrated community care” in the health sector of Sri Lanka.

(40 marks)

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Date :- 30th October 2017

Time :- 1.00 p.m. – 3.00 p.m.

STRUCTURED ESSAY QUESTIONS

PAPER II

HEALTH

Answer all four (04) questions.

Answer each question in a separate book.

1.

- 1.1. The private sector plays an important role in a country's health care delivery system. Provide an answer critically analysing the role of the private sector in the national health system. (60 marks)
- 1.2. Discuss the impact of the demographic transition in planning healthcare services in a developing country. (40 marks)

2.

- 2.1. The non-health sector stakeholders could contribute to formulation of national health policies. Provide an answer on how non-health sector stakeholders could make such contribution citing suitable examples. (60 marks)
- 2.2. Comment on the following statement: "The Annual Health Bulletin gives a snapshot view of the health situation in Sri Lanka". (40 marks)

Contd...../2-

3.

- 3.1. Pandemics are a threat to global health security. Provide an answer describing the challenges that you may encounter in controlling pandemics and the surveillance measures that could be adopted to overcome those challenges. (60 marks)
- 3.2. Discuss current developments in disease surveillance. (40 marks)

4.

- 4.1. Rapid reduction in genome sequencing costs is making it possible to sequence the genome of individuals. Provide an answer describing how genome sequence information of an individual could be used for health promotion and prevention, early detection, and more accurate diagnosis of diseases. (60 marks)
- 4.2. Describe the challenges you may encounter when genomic information is used in health care. (40 marks)