

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MD (MEDICAL ADMINISTRATION) PART I EXAMINATION
JANUARY 2019

Date:- 7th January 2019

Time:- 1.00 p.m. – 4.00 p.m.

PAPER I

Answer question **one (01)** and **three (03)** other questions.

Answer each question in a separate book.

1. (A)

In an estate plantation with a population of 145,000, sanitary conditions were found to be poor. Only 5% of households had latrines and there was high incidence of diseases connected with poor sanitation, such as hepatitis, gastroenteritis and worm infestation. The plantation management has initiated a sanitation project with the guidance of the Ministry of Health to increase the number of households with latrines by 25% each year. Two years later, the planned target of latrine construction has been reached but there was no decrease in the disease pattern.

1.1. Describe the possible reasons for no change in the disease pattern using a Fish bone diagram. (10 marks)

1.2. Outline a research to verify the above reasons. (10 marks)

(B)

1.3. Briefly explain methods of establishing and developing consensus in research. (15 marks)

(C)

1.4. You hypothesize that there is no significance between nurses and social workers in terms of weight. In each of the following, determine whether an error has been made and, if so, what type of error?

1.4.1. Social workers really weight significantly more than nurses, and you accept the null hypothesis. (05 marks)

1.4.2. Nurses really weight more than social workers, and you reject the null hypothesis. (05 marks)

1.4.3. Nurses and social workers really do weight the same, and you accept the null hypothesis. (05 marks)

1.4.4. Nurses and social workers really do weight the same, and you reject the null hypothesis. (05 marks)

Contd..../2-

- 1.5. You have measured 120 subjects on a particular scale. The mean is 75 and the standard deviation is 6.
- 1.5.1. What is the standard error of the mean? (05 marks)
- 1.5.2. Set up the 95% confidence interval for the mean. (05 marks)
- 1.5.3. Set up the 99% confidence interval for the mean. (05 marks)
- 1.6. Explain linear relationship and curvi-linear (non linear) relationship in a graphical format. (10 marks)

2.

- 2.1. You have been asked to prepare a report to the Director General of Health Services on foreign exchange fluctuation. Explain the factors that affect the “foreign exchange rate” (eg. 1 US\$ = Rs. 180) in Sri Lanka. (20 marks)
- 2.2. National Health Account (NHA) is an important document prepared by the Ministry of Health. As a Medical Administrator explain the importance of preparing the National Health Account. (20 marks)

3. (A)

You have been appointed as a member of a Team to evaluate the Drug Management System in a Teaching Hospital.

- 3.1. Describe the main aspects you would take into consideration in designing the evaluation of the drug management system. (15 marks)
- 3.2. Briefly describe the evaluation methods you will use in this task? (10 marks)
- 3.3. List Five (05) indicators you will use to evaluate different aspects of drug management in the Teaching Hospital. (05 marks)

(B)

- 3.4. How will be data collected in “Formative Evaluation” and “Summative Evaluation”. (10 marks)

Contd..../3-

4.
 - 4.1. Explain the importance of "Core Competency" and "Threshold Competency" in a Women's Hospital. How you can utilize these competencies as an effective administrator. (20 marks)
 - 4.2. What do you understand by Abell's framework in Strategic Management. In Strategic Management describe the role of Abell's framework with examples. (20 marks)
5. Maternal Mortality Rate remains constant for the last few years, despite several measures taken by different stake holders through the Ministry of Health.
 - 5.1. As a medical administrator critically discuss the above statement. (15 marks)
 - 5.2. What national level policy changes you would suggest to reduce the Maternal Mortality Rate? (10 marks)
 - 5.3. Design a strategic plan to implement the identified policy changes. (15 marks)
6.
 - 6.1. Briefly explain duties of a physician in general according to International Code of medical ethics in Declaration of Geneva as amended in 2003. (10 marks)
 - 6.2. You recently became the Director in a Teaching Hospital. During performance evaluation of medical officers, you noticed that the "professionalism" has not been assessed properly by the supervising consultants. You would like to introduce a new system of evaluation of professionalism. Your goal is to foster ethical behaviour rather than punish outliers.
 - 6.2.1. Whose advice or input would you seek in this process? (10 marks)
 - 6.2.2. What methods would you adopt to meet this goal? (10 marks)
 - 6.2.3. What are the anticipated challenges you may encounter during this process? (10 marks)

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MD (MEDICAL ADMINISTRATION) PART I EXAMINATION
JANUARY 2019

Date:- 8th January 2019

Time:- 9.00 a.m. – 12.00 noon

PAPER II

Answer question **one (01)** and **three (03)** other questions.
Answer each question in a separate book.

1. As a consultant you are requested to develop a strategy oriented Human Resource Management System for a Tertiary Care Private Sector Hospital in the Western Province.
 - 1.1. Describe the areas of HR requirement which you consider in developing this system. (10 marks)
 - 1.2. One of the strategic objective of this hospital is “To attain less than 1% hospital acquired infection rate in 2019. Describe in detail how would you formulate HR requirements needed to achieve the above objective giving examples. (35 marks)
 - 1.3. Explain Ansoff Matrix on Product/Service-Market Strategies. How would you advise the Director/Medical Services of a Private Hospital in Colombo, Why, How, When and What to look out for in Market Penetration Strategy? (35 marks)
2. “The rise in Non-Communicable Diseases (NCDs) have had major impacts on primary health care”. NCD programme has decided to make essential drugs available in all primary care hospitals.
 - 2.1. Assuming you are the Provincial Director of Health Services how would you achieve goals of supply chain management to ensure the availability of essential drugs? (15 marks)
 - 2.2. What are the barriers and challenges you would encounter in achieving above goals? (10 marks)
 - 2.3. Discuss the importance of support activities of the value chain in order to ensure essential drugs in primary care hospitals? (15 marks)

3.
 - 3.1. Outline the criteria and standards for evaluation for quality management system in a hospital. (15 marks)
 - 3.2. Explain three (03) quality improvement tools which are used to identify the adverse events reactively. (15 marks)
 - 3.3. Explain a tool which is used to identify the adverse events proactively. (10 marks)
4.
 - 4.1. Outline the steps of “Health Care Technology Management Cycle”. (05 marks)
 - 4.2. Assuming you are the Provincial Director of Health Services in the Western Province, how do you plan procurement of medical equipment for secondary care hospitals in the province for the year 2020. (15 marks)
 - 4.3. What is the importance of obtaining following securities in procurement process.
 - 4.3.1. Bid security (05 marks)
 - 4.3.2. Performance security (05 marks)
 - 4.4. What steps would you take to ensure “reliability” and “maintainability” of equipment during procurement. (10 marks)
5.
 - 5.1. What diseases are notifiable as a potential public health emergency of International Concern under International Health Regulation (IHR). (15marks)
 - 5.2. Explain the standing operating procedures at Airports which should be carried out by the relevant public health staff in a public health emergency of International Concern. (15 marks)
 - 5.3. Discuss the importance of International Health Regulation for Sri Lanka? (10 marks)
6. As a Regional Director of Health Services, you are planning to implement an electronic disease surveillance system in your district.
 - 6.1. What are the purposes of public health surveillance? (10 marks)
 - 6.2. Identify the stakeholders of the above project and what information you may obtain from each of the stakeholder? (20 marks)
 - 6.3. Discuss the usefulness of syndromic surveillance. (10 marks)