

POSTGRADUATE INSTITUTE OF MEDICINE  
UNIVERSITY OF COLOMBO

MD (MEDICAL ADMINISTRATION) PART I EXAMINATION – JULY 2021

Date:- 29<sup>th</sup> July 2021

Time:- 1.00 p.m. – 4.00 p.m.

PAPER I

Answer all five (05) questions.

Answer each question in a separate book.

1. You are working as a Regional Director of Health Service (RDHS) and you recognized that there is low attendance to healthy lifestyle centers in your district.
  - 1.1. Outline how would you plan a research study to identify the factors associated with low attendance to these healthy lifestyle centers in your district. (25 marks)
  - 1.2. Briefly justify the proposed study design. (10 marks)
  - 1.3. Discuss the importance of using qualitative and quantitative methods in identifying and determining these factors. (25 marks)
  
2.
  - 2.1. Briefly describe the importance of the Electronic Health Records. (10 marks)
  - 2.2. Compare and contrast manual procurement and e-Procurement. (15 marks)
  - 2.3. Describe the types of e-Procurement. (20 marks)
  - 2.4. Discuss the e-Government Procurement challenges. (15 marks)
  
3.
  - 3.1. Outline the steps in the public policy development process. (20 marks)
  - 3.2. Discuss the importance of stakeholder engagement in policy development. (30 marks)
  - 3.3. What do you understand by “policy instruments”? Explain giving examples. (10 marks)

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4.

- 4.1. In a case-control study to examine risk factors for lung cancer, cases were selected from those admitted to the hospital with lung cancer, and controls were people admitted to the same hospital with emphysema (a chronic lung disease for which smoking is a risk factor). The study finds no association between smoking and lung cancer.

Identify which types of error could have occurred and briefly describe why you think they have occurred. (20 marks)

- 4.2. To assess the association between Kawasaki syndrome (KS) and use of carpet shampoo, it was decided to conduct a research. Investigators selected 100 children with Kawasaki syndrome and 100 children (matching controls) without KS. Among the children with KS, 50 had a history of recent exposure to carpet shampoo. Among the controls, the number with a recent history of exposure to carpet shampoo was 25.

- 4.2.1. Show this data in a table format. (10 marks)
- 4.2.2. What is the study design? (10 marks)
- 4.2.3. Statistically prove that those exposed to carpet shampoo may have a high risk of getting Kawaski syndrome than those not exposed. (20 marks)

5.

- 5.1. A researcher studied 9 children with a specific congenital heart disease and found that they started to walk at a mean age of 12.8 months, with a standard deviation of 2.4 months.

If normal children start to walk at a mean age of 11.4 months, can the researcher conclude with 95% confidence that congenital heart disease delays the age at which children begins to walk? (20 marks)

- 5.2. The average life of Television tubes is 20,000 hours and the standard deviation 8,000 hours.

Find the probability of a random sample of 36 Television tubes to have a mean life of more than 23,000 hours. (20 marks)

- 5.3. The heights of a large population of men follow a normal distribution with a mean of 172 cm and a standard deviation of 6.5 cm.

In this population, what height is exceeded by only 2.3% of the population? (20 marks)

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MD (MEDICAL ADMINISTRATION) PART I EXAMINATION – JULY 2021

Date:- 30<sup>th</sup> July 2021

Time:- 9.00 a.m. – 12.00 noon

PAPER II

Answer all five (05) questions.

Answer each question in a separate book.

1. You have assumed duties as a Medical Director of a private hospital. Your Chief Executive Officer (CEO) requests you to initiate developing strategies for achieving the vision in the changing environment. He also insists these strategies should determine the scope of the organization and specify how the organization will expand scope, reduce scope, or maintain scope and submit a report. You are informed that adaptive strategies are the best way to find the requests of your CEO.
  - 1.1. What do you understand by adaptive strategies? (05 marks)
  - 1.2. Briefly describe the six (06) adaptive strategies. (15 marks)
  - 1.3. Discuss three (03) such adaptive strategies giving definitions and examples related to the healthcare industry in a changing environment. (40 marks)
2. You are the Director of a teaching hospital and you have observed that the number of suspected COVID-19 patients seeking care is increasing and there is a difficulty in finding beds in designated COVID treatment centers in order to transfer out COVID-19 diagnosed patients.
  - 2.1. Describe the problems you may encounter in your hospital due to this situation. (25 marks)
  - 2.2. Discuss your plan and implementation process to overcome the above identified problems. (35 marks)

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3.

- 3.1. What do you mean by 'Public Health Ethics' and how it is distinguished from 'Bio Medical Ethics'? (08 marks)
- 3.2. Describe the general moral considerations you would consider in Public Health and its importance? (12 marks)
- 3.3. As a medical administrator, discuss five (05) justificatory conditions which you use to resolve conflicts among these moral considerations in Public Health in managing situation of COVID-19 pandemic in the country. Explain your answer giving examples with respect of quarantine of contacts, restricted travel, and isolation of COVID-19 patients in intermediate care centers. (40 marks)
4. Discuss the different health financing mechanisms, available to a developing country with examples. (60 marks)

5.

- 5.1. Describe the importance of components in Human Resource Management (HRM) in relation to health management. (15 marks)
- 5.2. Staffing and Staff Management is one of the pillars in Clinical Governance and Mentorship is part of staff management.  
Briefly explain the common elements of mentoring. (15 marks)
- 5.3. Mentoring relationship vary depending upon the people and organization. Briefly describe such mentoring relationship. (15 marks)
- 5.4. Explain qualities of a Mentor. (15 marks)