

M.
Nayan

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MD (MEDICAL ADMINISTRATION) PART I EXAMINATION
JUNE 2023

Date:- 8th June 2023

Time:- 9.00 a.m. – 12.00 noon

PAPER I

Answer **all five (05)** questions.

Answer each question in a separate book.

1. In Sri Lanka, due to the current economic crisis more people are pushed into poverty with increased utilization of government health services. It has warranted exploring more sustainable financing options for providing healthcare. The Ministry of Health has initiated development of a health financing policy.
 - 1.1. Describe the importance of conducting a situation analysis in the purview of developing a health financing policy. (10 marks)
 - 1.2. Describe the methods that can be used to gather more evidence to specify the problem. (30 marks)
 - 1.3. List the stakeholders to be involved in developing a health financing policy. (20 marks)
 - 1.4. Discuss the need for stakeholder engagement in developing a policy? (40 marks)
2. A hospital information system (HIS) is a comprehensive software solution designed to manage and streamline various administrative, financial, and clinical processes within a healthcare facility. It consists of Hospital Information Management Systems (HIMS) and Hospital Management Information systems (HMIS).
 - 2.1. Explain the terms “Hospital Information Management Systems” (HIMS) and “Hospital Management Information systems” (HMIS) and briefly discuss with two (02) examples for each. (30 marks)
 - 2.2. As the Director of a hospital selected to implement a Hospital Information Management System (HIMS), you are faced with resistance from Out Patient Department (OPD) doctors regarding the digitization process. They express concerns about being monitored and delays in patient treatment due to the new system.

Describe how you would address this problem. (70 marks)

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3.
 - 3.1. List three (03) measures of dispersion of data. (30 marks)
 - 3.2. Define one (01) of the measures you listed above. (20 marks)
 - 3.3. Heights of a group of 100 university students were measured and found that the mean was 159.6 cm, and the standard deviation was 23.4.
 - 3.3.1. Calculate 95% confidence interval. (30 marks)
 - 3.3.2. Interpret your results. (20 marks)

4.
 - 4.1. Discuss the advantages and disadvantages of case control studies compared to cohort studies. (40 marks)
 - 4.2. A case control study was conducted to evaluate the relationship between artificial sweeteners and bladder cancer. 3000 cases and 3000 controls were enrolled in the study. Amongst the cases 1293 had used artificial sweeteners in the past while among the controls 855 used sweeteners in the past.
 - 4.2.1. Show the data using a 2 x 2 table. (20 marks)
 - 4.2.2. Compute the appropriate measure of association and roundoff the answer to the nearest tenth. (30 marks)
 - 4.2.3. Interpret the result. (10 marks)

5. The Director of a Teaching Hospital wants to carry out a management research project to reduce waiting time and enhance satisfaction of patients. Time-based appointments for patients attending diabetic clinic has not been practiced before.
 - 5.1. Name the most appropriate study design to answer this research question. (10 marks)
 - 5.2. State your null and alternative hypotheses. (20 marks)
 - 5.3. Define your key outcome variables and describe how you would measure them. (30 marks)
 - 5.4. List the biases you would anticipate in this study and describe in detail two (02) of them and the actions you will take to mitigate them. (40 marks)

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JUNE 2023

Date:- 8th June 2023

Time:- 1.00 p.m. – 4.00 p.m.

PAPER II

Answer **all five (05)** questions.

Answer each question in a separate book.

1.

1.1. List four (04) main financiers of health care in Sri Lanka. (10 marks)

1.2. "Tax ratio is relatively low in Sri Lanka compared to that of developed countries".

Critique this statement. (50 marks)

1.3. Describe the factors that affect the Foreign Exchange rate of a country. (40 marks)

2. "Japanese strategic management basically focus on the breakthrough innovation in the procedure and incremental innovation in the products".

Discuss this statement with the graphical explanation comparing USA and Japan in product, process and procedure innovation. (100 marks)

3. There was an incident where two minor employees working in the laboratory of a teaching hospital were infected with melioidosis and admitted for inward care. Initial communication revealed that this was due to poor safety procedures in the Microbiology laboratory. Furthermore, the autoclave machines used for sterilization of used containers were broken down and awaiting repair. It was also said that the minor employees cleaned the used containers without sterilization. After this incident, the minor employees refused to work in the laboratory as a protest and the work in the laboratory has come to a standstill.

3.1. As the Director of the Teaching Hospital, what immediate actions would you take? (20 marks)

3.2. What steps would you take to investigate this incident? (40 marks)

3.3. Discuss in detail your actions to prevent such incidents in future. (40 marks)

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4. Health services have repeatedly faced various crisis situations. Hence higher health authorities are responsible for developing resilient health systems which are capable enough to absorb and adopt for any crisis while maintaining its routine patient care management activities. Strengthening the health workforce is one of the important strategy to develop health system resilience.

As a Human Resource Management (HRM) expert, what are your HRM recommendations to higher health authorities in relation to achieving health system resilience? (100 marks)

5.

- 5.1. What is the aim of "Research Ethics"? (05 marks)
- 5.2. Discuss the fundamental principles of Human Research Ethics and discuss it's importance in protecting human subjects in health care research. (45 marks)
- 5.3. Describe the role of "Research Ethics Committees". (25 marks)
- 5.4. As a medical administrator, what type of deaths should be reportable to police and inquirer to have an inquest? (25 marks)