

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (MEDICAL ADMINISTRATION) – NOVEMBER 2019

Date: 5th November 2019

Time: 1.00 p.m. – 4.00 p.m.

SECTION A
Paper I

Answer **all five** questions.

Answer **each** question in a separate book.

1.
 - 1.1. Define patient experience in relation to health system. (5 marks)
 - 1.2. Compare and contrast patient experience and patient satisfaction. (10 marks)
 - 1.3. Describe the steps you will undertake to carry out a patient experience survey in a Medical ward of a District General Hospital. (15 marks)

2. It has been decided to conduct a cohort study to study the effectiveness of Dengue vaccine. A group of 1000 children five years of age who were fully immunized with Dengue vaccine were followed up for 20 years. A group of 1000 children 5 years of age who were not immunized were also followed up for 20 years.
During 20 years, Dengue cases were reported as given below.

Number of Dengue cases among immunized 20 and deaths 1
Number of Dengue cases among unimmunized 25 and deaths 5
 - 2.1. Calculate the relative risk of contracting Dengue fever after immunization. (15 marks)
 - 2.2. Apply a statistical test to prove whether the vaccine has improved the outcome of Dengue cases using the above data. (15 marks)

3. Discuss the importance of following in relation to management of health care organizations.
 - 3.1. Mintzberg's Managerial Roles (10 marks)
 - 3.2. Organizational Structure (10 marks)
 - 3.3. Systems theory (10 marks)

4. "It is necessary to launch a motivational program to get the work done through people to achieve organizational objective(s) effectively and efficiently. Explain how far theories of motivation (at least three theories) provide a framework to motivate employees belonging to different levels in the hierarchy of an organization.

Are these motivational theories applicable in Sri Lankan context? Justify your answer. (30 marks)

5. You as a Hospital Director is requested to evaluate the below given project in terms of Net Present Value (NPV).

Projected cash flows are shown in the table below.

Period	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Cash outflows (Rs 000s)	5400		200			
Cash Inflows (Rs 000s)		700	800	1100	2600	3900

- 5.1. Calculate the project's Net Present Value (NPV) assuming the cost of capital is 11%. (6 marks)
- 5.2. Calculate the project's Net Present Value (NPV) assuming the cost of capital is 16%. (6 marks)
- 5.3. State with reasons whether this project is acceptable, when the cost of capital is 16%. (5 marks)
- 5.4. Calculate the Internal Rate of Return (IRR) of the project. (8 marks)
- 5.5. If this project is regarding commissioning of a Mammography machine; what other factors should you consider when making your decision? (5 marks)

Use the table provided to obtain Net Present Values.

Use the formula $NPV = C_i / (1+r)^i$

C_i is the cash flow at period i
 i is the period in years
 r is the cost of capital

Formula Internal Rate of Return (IRR) = $x+y(p/q)$

X discount rate which gives a positive NPV
 Y Difference between the discount rates (in this sum it is 16%-11%= 5%)
 P the value of positive NPV
 q the range of the NPV values

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MSc (MEDICAL ADMINISTRATION) – NOVEMBER 2019

Date: 6th November 2019

Time: 9.30 a.m. – 11.30 a.m.

SECTION A
Paper II

Answer **all fifteen (15)** questions.

Answer **each** question in a separate book.

1. Write short notes on the following:
 - 1.1. Authority (5 marks)
 - 1.2. Responsibility (5 marks)

2.
 - 2.1. Define “work study”. (2 marks)
 - 2.2. Outline how you will design a work study of an infection control nursing officer. (8 marks)

3. Write short notes on
 - 3.1. Committee on Public Enterprises (COPE) (5 marks)
 - 3.2. Human Capital Index (HCI) (5 marks)

4. Write short notes on
 - 4.1. Bid Security (5 marks)
 - 4.2. Public Bid Opening (5 marks)

5. Outline the advantages and disadvantages of out-sourcing of support services in a hospital. (10 marks)

6. Write short notes on
 - 6.1. Disability Adjusted Life Years (DALYs) (5 marks)
 - 6.2. Quality Adjusted Life Years (5 marks)

7. Outline advantages and disadvantages of using
 - 7.1. Close ended questions in research (5 marks)
 - 7.2. Open ended questions in research (5 marks)
8. List out five (05) uses of information generated from job analysis. (10 marks)
9. Briefly explain the use of following in relation to Overall Equipment Effectiveness (OEE).
 - 9.1. Equipment Availability (5 marks)
 - 9.2. Performance Efficiency (5 marks)
10. Describe briefly the composition and the functions of following Committees.
 - 10.1. Institutional drug and therapeutic committee (05 marks)
 - 10.2. Hospital Infection control committee (05 marks)
11. Discuss the criticisms of benchmarking. (10 marks)
12. Compare and contrast Groups Vs Teams with examples. (10 marks)
13. Compare and contrast monitoring and evaluation (10 marks)
14. Write short notes on
 - 14.1. PESTEL (5 marks)
 - 14.2. Brain storming (5 marks)
15. Write short notes on:
 - 15.1. Granting free pratique to ships (5 marks)
 - 15.2. Issuing ship sanitation certificate (SSCC) or ship sanitation exemption certificate (SSCEC) (5 marks)

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MSc (MEDICAL ADMINISTRATION) – NOVEMBER 2019

Date: 6th November 2019

Time: 1.00 p.m. – 4.00 p.m.

SECTION B
Paper I

Answer **all five** questions.

Answer **each** question in a separate book.

1.
 - 1.1. Describe the classical model of decision making and the administrative model of decision making. (10 marks)
 - 1.2. You are informed that staff of Professions Supplementary to Medicine (PSM) declared a two-day trade union action giving only 24 hours notice. Based on the knowledge on decision making process how will you handle this crisis situation without disrupting the patient care services. (20 marks)
2. You are working as a Medical Superintendent of a Base Hospital 'A' and government takes a policy decision to upgrade your hospital to a District General Hospital.
 - 2.1. Describe the emerging issues you will consider when planning the new District General Hospital. (15 marks)
 - 2.2. Discuss the strategic issues that must be considered when planning of the hospital. (15 marks)
3. Non-Communicable Disease (NCD) unit of Ministry of Health planning to incorporate NCD prevention duties to Field Public Health Midwives.
 - 3.1. As Regional Director of Health Services to submit a proposal to revise the job description based on Human Resources Management principles you have learnt? (15 marks)
 - 3.2. What are the challenges you might face in incorporating new job functions? (15 marks)

4. You are appointed as Director of a District General Hospital. There is no disaster preparedness plan available in the hospital. Discuss in detail how you will develop the disaster management plan for your hospital. (30 marks)
5. You have been appointed as a Director of a Line Ministry hospital and you are supposed to prepare a procurement plan to purchase medical equipment for the next year.

As you are the chairmen of the procurement committee of the hospital answer the following:

- 5.1. Describe the steps that you would take for preparing procurement plan? (5 marks)
- 5.2. What are your main considerations for deciding priority of medical equipment to be included in the plan? (5 marks)
- 5.3. Describe the steps in detail of the medical procurement process until you commission the requested medical equipment. (20 marks)

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MSc (MEDICAL ADMINISTRATION) – NOVEMBER 2019

Date: 7th November 2019

Time: 9.30 a.m. – 11.30 a.m.

SECTION B
Paper II

Answer **all fifteen (15)** questions.

Answer **each** question in a separate book.

1.
 - 1.1. Define medical leadership in relation to Provincial General Hospital. (2 marks)
 - 1.2. Outline twelve (12) competencies of an effective Director of such a Hospital. (8 marks)
2. Briefly explain how you would use following Japanese concepts in relation to quality improvement of the Maternity ward of a Base Hospital.
 - 2.1. Muda (4 marks)
 - 2.2. Mura (3 marks)
 - 2.3. Muri (3 marks)
3. Briefly describe how each of the following failures affect Patient Safety in your hospital.
 - 3.1. Active failure (05 marks)
 - 3.2. Latent failure (05 marks)
4. List out five (05) measures would you take to improve hand hygiene in your hospital? (10 marks)
5. What do you mean by the following:
 - 5.1. Hospital Readmission Rate (05 marks)
 - 5.2. Neonatal Mortality Rate (05 marks)

6. You have observed the clinical waste management process at the District General Hospital where you have been appointed recently, it is not functioning optimally. Outline the steps you would undertake. (10 marks)
7. What actions will you take as Director of a hospital to reduce the incidence of infections due to multi drugs resistant organisms. (10 marks)
8. You are appointed as Director of the newly constructed Nephrology Hospital in Polonnaruwa and you are requested to develop a mission statement for the hospital.
Describe briefly the characteristics and components of a mission statement. (10 marks)
9. Assuming you are the medical superintendent of a hospital, there were several complaints against medical errors. Briefly describe various types of medical errors with examples. (10 marks)
10. Assuming you are the medical superintendent of a hospital, your outdoor pharmacist complains to you about excessive use of anti-biotics in the OPD. Outline 5 measures to overcome this situation. (10 marks)
11. WHO has declared PHEIC (Public Health Emergency of International Concern) due to Ebola Pandemic situation in the Democratic Republic of Congo. A pilot in command of an aircraft carrying a suspect of PHEIC informed the Airport Medical Officer (APMO) of BIA Katunayake through the air traffic control unit about the occurrence of the illness. Explain the procedure that should be adapted by the APMO to prevent and control an Ebola outbreak in Sri Lanka. (10 marks)
12. You are appointed as a Medical Superintendent of a newly upgraded Base Hospital which comes under Line Ministry. List the steps in updating the cadre position in that hospital. (10 marks)
13. As the Regional Director Health Services briefly describe the gaps in the current performance appraisal of the Regional Epidemiologist. (10 marks)

14. There is a complaint that the travelling and subsistence vouchers submitted to the Regional Director of Health office from the area officers are incomplete and that is the main reason for delay in payments. Briefly outline the steps you will undertake as the Regional Director of Health Services to ensure correct submission of these vouchers. (10 marks)
15. Briefly describe how to develop an effective supervisory mechanism for a Public Health Inspector. (10 marks)