

Master copy
03/08/2022

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MD (MEDICAL ADMINISTRATION) PART I EXAMINATION –
AUGUST 2022

Date : 04th August 2022

Time: 9.00 a.m. -12.00 noon

PAPER I

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

Answer each question in a separate book.

1.

1.1. Describe two types of analytical studies giving examples. (50 marks)

1.2. A screening test of 95% sensitivity and 90% specificity is applied to two populations. The prevalence of the disease being screened for is 10% in population A and 1% in population B.

1.2.1. Which population has more false positives? (15 marks)

1.2.2. Which population has more false negatives? (15 marks)

1.3. World Health Organization has alerted the world on the risk of spreading monkeypox virus. As the Provincial Director of Health Services, what actions would you take to strengthen surveillance of monkeypox virus in your province. (20 marks)

2. There were many digital health interventions and applications successfully implemented during the COVID-19 pandemic in Sri Lanka. As a Medical Administrator, you are entrusted to make use of similar interventions and applications for Non-Communicable Disease Surveillance.

2.1. Briefly describe the potential administrative and technical challenges that you may encounter in the above given task. (40 marks)

2.2. Discuss how you would overcome the above challenges. (60 marks)

Contd.../2-



3. "Public health policy, in the form of laws, regulations, and guidelines, has a profound effect on health status of population."

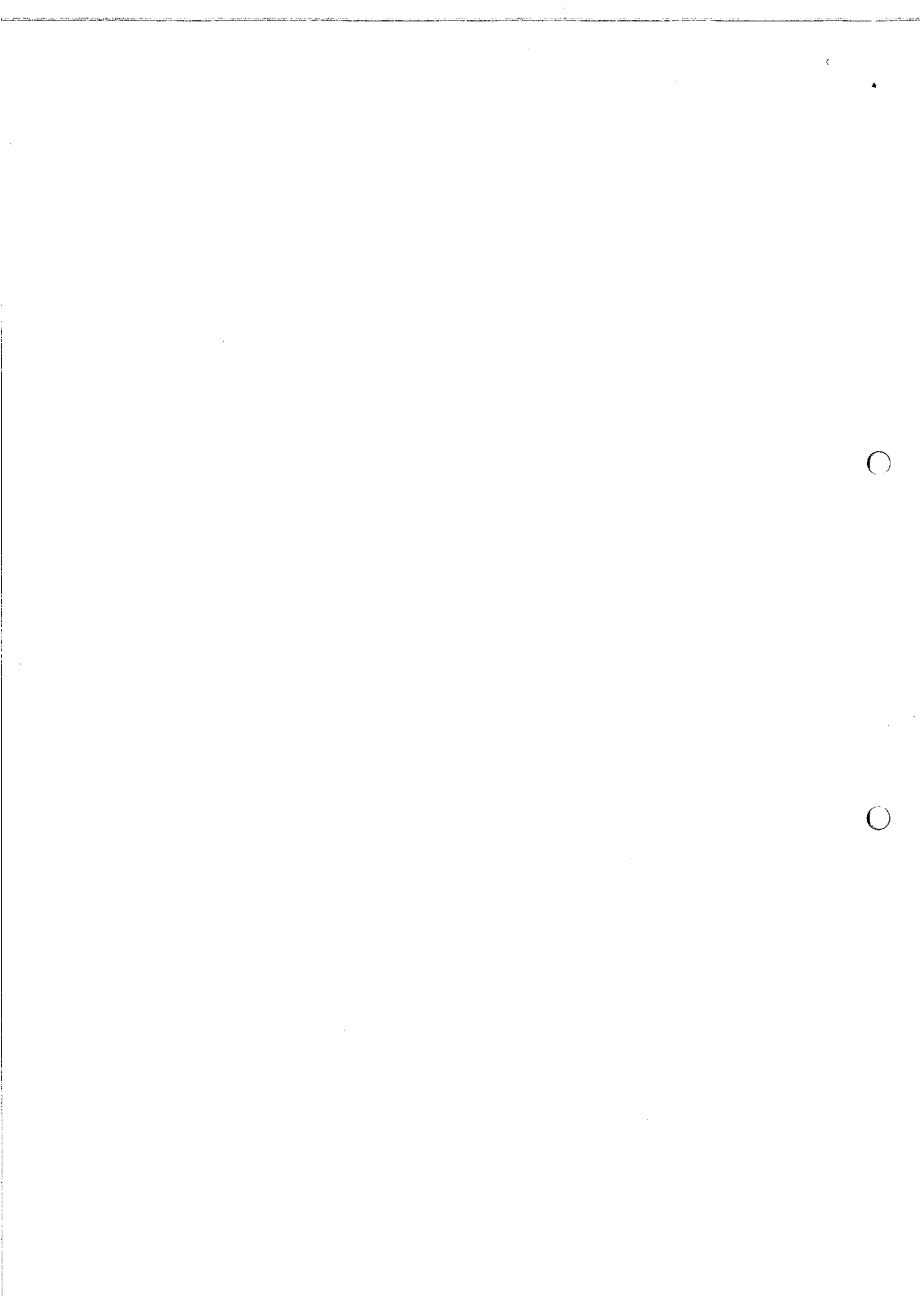
Discuss this statement in global, national and local context with appropriate examples. (100 marks)

4. A community-based household survey was conducted in catchment areas of two Divisional Hospitals (P and Q) in order to compare out-patient department (OPD) utilization.

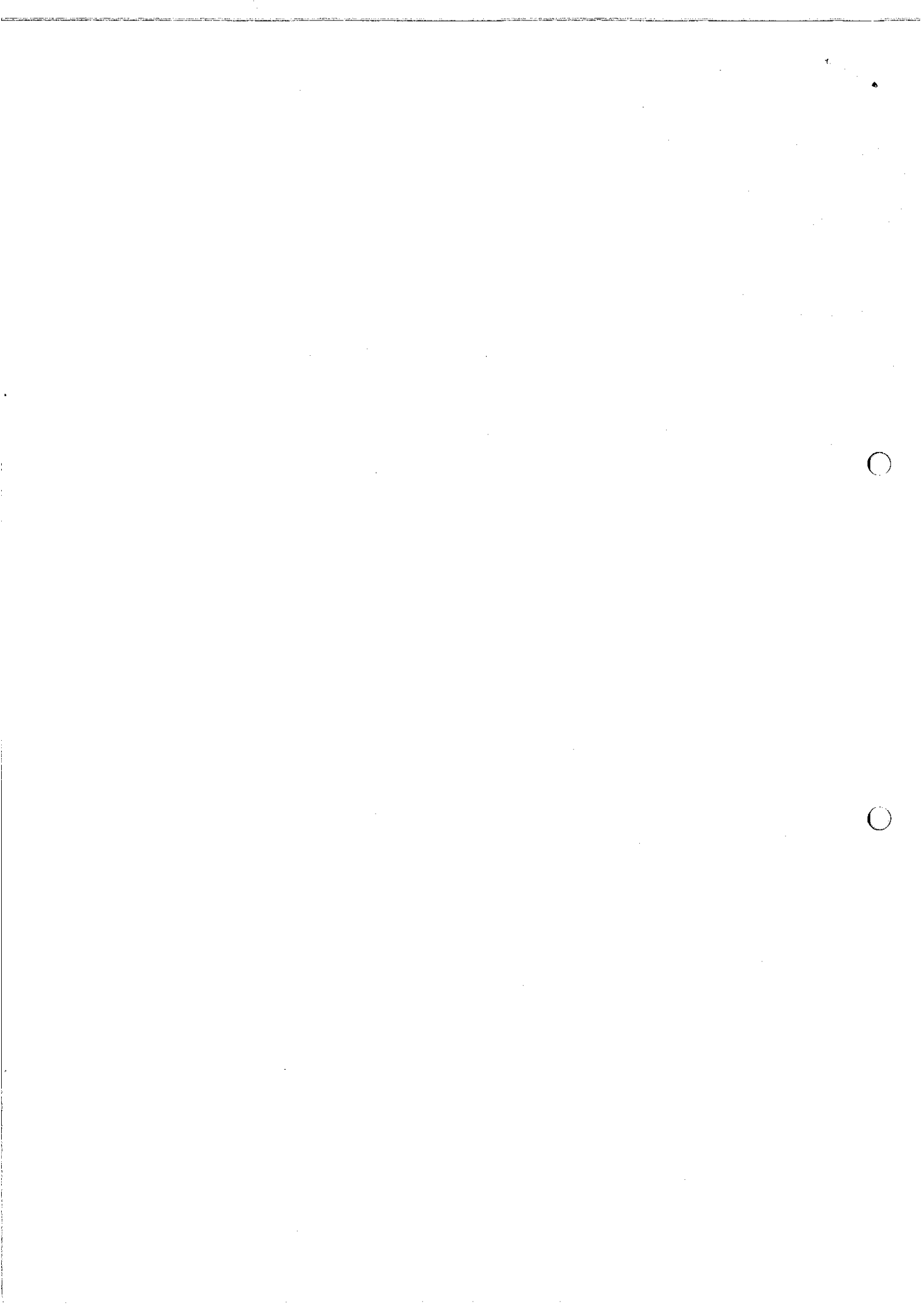
The key results are given in the table below:

Target group	% in the area who utilized OPD in the last 12 months at	
	Divisional Hospital 'P'	Divisional Hospital 'Q'
Children under 5 years	5%	6%
Adults 18-64 years	12%	24%
Elderly 65 years and above	26%	30%

- 4.1. Illustrate results using a bar-diagram. (30 marks)
- 4.2. Health authorities want to know which hospital has higher utilization by elderly population.
- 4.2.1. Write the null hypothesis and alternate hypothesis for this analysis. (20 marks)
- 4.2.2. Suggest a suitable statistical test giving reasons. (20 marks)
- 4.3. Health authorities are further interested to know whether OPD utilization by adults 18-64 years is determined by the gender of the person and distance to the hospital. Propose how you would collect relevant data and conduct analysis. (30 marks)



5. You are the Regional Director of Health Services in an area where the primary shared care cluster piloting is taking place. You intend to formulate a research to measure the effectiveness of this project in order to improve the utilization of primary care cluster system.
- 5.1. What are the service components you would select for the research to measure effectiveness of primary care cluster system? (30 Marks)
- 5.2. Describe the research methodology you would propose for this study (70 Marks)



POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MD (MEDICAL ADMINISTRATION)PART I EXAMINATION –
AUGUST 2022

Date :04th August 2022

Time: 1.00 p.m. -4.00 p.m.

PAPER II

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

Answer each question in a separate book.

1. Due to the current economic instability and social crisis, a large number of skilled health staff in main categories are leaving the health service either on no pay leave or on resignation.
 - 1.1 Outline the challenges to the Ministry of Health due to above exodus of skilled manpower. (30 marks)
 - 1.2 As a Human Resource management consultant, describe what you would propose to the Ministry of Health to mitigate the effects of this issue. (70 marks)
2.
 - 2.1. Explain what do you understand by VRIN framework in strategic management? (30 marks)
 - 2.2. You are managing a specialized subfertility hospital in the private sector in Colombo. Explain giving examples how the VRIN framework will support your hospital to be the leader in the market. (70 marks)
3.
 - 3.1 Briefly describe the Budgetary process in Sri Lanka, highlighting key stages. (40 marks)
 - 3.2. What is the impact of the current economic crisis on Health care delivery in Sri Lanka? (20 marks)
 - 3.3 Describe the strategies you would propose to mitigate the impact on public sector health financing. (40 marks)

4. There is a conflict situation between radiographers and medical physicists on post-exposure radiation measurement of patients after Positron Emission Tomography (PET/CT) scan in a teaching hospital. Radiographers claim that although no specific targeted training was given to them, they are able to perform the measurement as it was included in their basic training. Medical physicists claim that as they received a formal targeted training, they can perform it scientifically. Specialists and medical officers claim that if the emitting radiation is not measured properly, it is harmful to the health and refrain from work until a solution is provided.
 - 4.1 Outline the different conflict resolution techniques you would propose to solve such conflicts. (30 marks)
 - 4.2. Discuss the strategies you as the Director of the hospital will adopt in resolution of this conflict? (70 marks)

5. An unconscious patient with multiple fractures was brought to an Accident & Emergency Department of a teaching hospital following a road traffic accident (RTA).The surgical team decided to perform an emergency surgery. It was recommended to give blood transfusion to stabilize the patient, until the patient is taken to the operation theatre. As the director, you have been informed that the relatives of the patient are not contactable.
 - 5.1 Describe the ethical issues which could arise during managing this patient throughout the hospital stay. (25 marks)
 - 5.2 How would you solve the ethical dilemmas and discuss the underlying ethical principles? (35 marks)
 - 5.3 Discuss the medico-legal duties of the clinicians in this situation? (40 marks)