

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (MEDICAL ADMINISTRATION) EXAMINATION – MARCH 2012

Date :- 26th March 2012

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. “There is a gap in financing government health services in Sri Lanka”
Discuss the means by which this gap could be minimized. (30 marks)

2.
 - 2.1. Define a screening test. (05 marks)
 - 2.2. Describe with examples the criteria for selecting a disease for screening. (15 marks)
 - 2.3. Compare and contrast the characteristics of a screening test and a diagnostic test. (10 marks)

3.
 - 3.1. Define the terms “productivity”, “quality” and “safety” in relation to health care services. (06 marks)
 - 3.2. As a hospital director what action would you take to improve the service quality and to ensure safe medical practices in the hospital. (15 marks)
 - 3.3. Describe briefly the importance and benefits of productivity for the continued growth and success of a hospital. (09 marks)

Contd.../2-

4. As a medical administrator you have observed that there are conflicts among different work groups in hospitals.

4.1. Briefly explain the steps that you would follow to manage these conflicts. (15 marks)

4.2. List out conflict resolution techniques available in conflict management to deal with the hospital conflicts. (10 marks)

4.3. Outline conflict stimulation techniques you would use to resolve hospital conflicts. (05 marks)

5.

5.1. Explain the following terms as applied to testing a statistical hypothesis.

5.1.1. One-sided alternative (04 marks)

5.1.2. Two-sided alternative (04 marks)

5.1.3. Significant level of the test (04 marks)

5.2. Government health authorities have specified that the average nicotine content per cigarette should not exceed 17.5 milligrammes. The cigarette company having large sales claims that the cigarette produced by them confirms to government specifications. A Public Health Inspector wishing to test the companies claim examined a random sample of 36 cigarettes. This sample yielded a mean nicotine content of 18.6 milligrams with a standard deviation of 2.4 milligrammes.

5.2.1. Formulate the null and alternative hypotheses. (05 marks)

5.2.2. What is the test statistic to be used. Give reasons for your answer. (05 marks)

5.2.3. Compute the test statistic and draw your conclusions at 5% level of significance. Interpret the results value of $Z_{0.05} = 1.645$. (08 marks)

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Date :- 27th March 2012

Time :-9.30 a.m. – 11.30 a.m.

SECTION A

PAPER II

Answer **all** questions.

Answer each question in a separate book.

1. “Inequality in health is largely a reflection of social inequality”. Explain. (10 marks)
2. When do you need to make a cost-apportionment exercise ? (10 marks)
3. Distinguish between cost-effectiveness and community effectiveness. (10 marks)
4. List and describe briefly the different sampling methods. (10 marks)
5.
 - 5.1. What were the three essential management skills identified by Robert Katz ? (03 marks)
 - 5.2. Outline the steps that you would take to enhance your management skills as a medial administrator. (07 marks)
6.
 - 6.1. What is trust ? (04 marks)
 - 6.2. What are the main dimensions of trust building (06 marks)

Contd..../2-

7. A Non Governmental Organization has agreed to grant Rs. 10 million for the implementation of awareness programmes on non communicable diseases in the Western Province. Assuming that you are the Provincial Director of Health Services, explain the approval procedure to be followed to implement the above programme with the financial assistance of the said organization. (10 marks)
8. "Public administration is the action part of the government", Comment. (10 marks)
9. What is meant by simple linear correlation between two random variables. If the correlation coefficient computed is significant, explain briefly how further study can be pursued with the two variables. (10 marks)
10. Write short notes on –
- 10.1. Sri Lanka Demographic and Health Survey (SLDHS) (05 marks)
- 10.2. Population Census. (05 marks)
11. List the factors that should be considered before implementing a computerized health information system in a District General Hospital. (10 marks)
- 12.
- 12.1. What are the ethics in relation to physical harm during research. (05 marks)
- 12.2. Fully anonymity rather than confidentiality. (05 marks)
13. Short notes on –
- 13.1. Focus group discussion (05 marks)
- 13.2. Close ended questionnaire (05 marks)
14. Explain briefly health policy formulation process. (10 marks)
15. Does Sri Lanka need health sector reforms, Discuss. (10 marks)

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Date :- 27th March 2012

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. Briefly describe the disease surveillance system in Sri Lanka. (20 marks)

1.2. As a Regional Director of Health Services describe how you would effectively utilize the information gathered through the disease surveillance system to improve the health status in your district. (10 marks)

2.

2.1. What are the five (05) stages in Patient Safety Culture ? (10 marks)

2.2. As a Head of the institution explain measures you would take to improve the patient safety culture in your hospital. (20 marks)

3. Discuss critically the advantages and disadvantages of using Public Health Field Staff in prevention and control of Cardiovascular Diseases in Sri Lanka. (30 marks)

Contd...../2-

4. Japanese government has agreed to provide a grant to improve the health services in Sri Lanka. Two areas were considered for funding. They were,

(a) Improvement of production capacity of State Pharmaceutical Manufacturing Corporation. It is expected to improve the production capacity for drugs needed for management of non communicable diseases.

(b) Procurement of ambulances to provincial level hospitals.

4.1. Write project objectives and targets for improvement of production capacity of state Pharmaceutical Manufacturing Corporation. (06 marks)

4.2. Write two (02) suitable indicators to measure the successful completion of the project for improvement of production capacity of State Pharmaceutical Manufacturing Corporation giving details on how to calculate the indicators and justification for the selection.
(08 marks)

4.3. The project management team have identified that the following activities need to be completed to procure ambulances.

No.	Activity	No. of days needed for the activity	Predecessors	Successors
1	Decide on the number of ambulances needed through a situation analysis	28d		2
2	Preparation of a list of institutions to which ambulances would be given	7d	1	6
3	Appointment of a Technical Evaluation Committee	14d		4
4	Decide on specifications	14d	3	6
5	Establishment of a cabinet appointed tender board	28d		6
6	Preparation of tender documents	28d	5,4,2	7
7	Call for tenders	1d	6	8
8	Time to apply for tenders	28d	7	9
9	Evaluation and award of tender	14d	8	10
10	Shipment of vehicles	56d	9	11
11	Clearing the vehicles	7d	10	12
12	Distribution of ambulances	1d	11	

Prepare a Gantt chart for the activities considering time in weeks. Mark the critical pathway.
(16 marks)

5. Assume that you are the Medical Superintendent of a District General Hospital and you have encountered several problems in relation to maintenance of medical equipment. It is decided to find out the root causes of these problems to improve the situation.
- 5.1. List the possible major problems that you would have encountered in relation to maintenance of medical equipment. (05 marks)
- 5.2. What criteria would you consider to prioritize these problems? (10 marks)
- 5.3. What steps would you take in this scenario in order to improve maintenance of medical equipment of the hospital? (15 marks)

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Date :- 28th March 2012

Time :-9.30 a.m. – 11.30 a.m.

SECTION B

PAPER II

Answer **all** questions.

Answer each question in a separate book.

1.
 - 1.1. Distinguish between Results Based Planning and Resource Based Planning ? (04 marks)
 - 1.2. List the advantages and disadvantages of Results Based Planning ? (06 marks)
2.
 - 2.1. What is SWOT analysis ? (05 marks)
 - 2.2. How does this help in developing strategies ? (05 marks)
3. As the head of an institution you want to approach a donor for funding
 - 3.1. What factors would you consider in selecting a donor. (05 marks)
 - 3.2. What are the key components you would include in your proposal ? (05 marks)
4.
 - 4.1. Outline the water quality surveillance system in Sri Lanka.(04 marks)
 - 4.2. What are the common water borne diseases in Sri Lanka ? (03 marks)
 - 4.3. List the strategies for prevention of water borne diseases ? (03 marks)

Contd...../2-

- 5.
- 5.1. List the authorized officers designated under the Food Act No. 26 of 1980. (04 marks)
- 5.2. Describe briefly the differences between formal and informal sampling. (06 marks)
6. As a Regional Director of Health Services, outline how would you reorient the present health staff to carry out health promotion and educational activities related to Non Communicable Disease in your region. (10 marks)
7. As the Director of a Teaching Hospital you have observed that an infection is spreading in your Special Care Baby Unit. Outline the steps you would take to overcome this situation. (10 marks)
8. You are appointed as a Director to a Tertiary Care Hospital. You find that there is an undue congestion in outpatient clinics. What actions would you propose to ease this congestion? (10 marks)
9. Your hospital has ordered orthopaedic appliances in the year 2009 and you received these appliances in the year 2012. You find that this is over and above the present requirements.
- 9.1. What steps would you take to address this problem? (05 marks)
- 9.2. How would you ensure that this problem does not recur in the future? (05 marks)
10. As the Medical Superintendent of a District General Hospital you want to validate the information contained in the quarterly Indoor Morbidity and Mortality Return. Briefly outline how you would validate the information compiled in this return. (10 marks)

11. You are the Regional Director of Health Services. A NCD screening programme has been conducted at work places over the last three years in your district. How would you evaluate the programme? (10 marks)

12.

12.1. What are the main components of disaster preparedness plans? (04 marks)

12.2. What are the main functions of the health sector at the scene of a mass casualty incident? (06 marks)

13. You have noted excessive quantities of paracetamol are being issued at the outdoor dispensary in a Base Hospital during the last three months. Assuming that you are the Medical Superintendent of this hospital outline the steps you would take to manage this situation. (10 marks)

14. Write short notes on

14.1. Nutritional Supplementation of Pregnant Mothers. (05 marks)

14.2. Maternity Statistics Return. (05 marks)

15. Define unmet need of family planning and outline its implications on women's health. (10 marks)