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POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (MEDICAL ADMINISTRATION) EXAMINATION – OCTOBER 2013

Date :- 8th October 2013

Time :- 1.00 p.m. – 4.00 p.m.

SECTION A

PAPER I

Answer **all five** question.

Answer each question in a separate book.

1. The table below represents the costs and benefits of four alternative clinical programmes designed to treat a single deadly disease which afflicts all people over the age of 18 years (children are immune to the disease).

Clinical Programme	Cost (Rs)	Lives saved	Cost effectiveness ratio
A	100,000	10	10,000.00
B	100,000	12	8,333.33
C	200,000	12	16,666.67
D	200,000	15	13,333.33

- 1.1. In terms of the cost-effectiveness ratio, state which programme is the best and briefly explain why? (05 marks)
- 1.2. Assuming that programme B is targeted as saving the lives of senior citizens (aged 65 and older) and programme C is targeted at saving the lives of young adults (aged 18-30), provide an economic argument in support of choosing programme C over programme B? (Ignore alternatives A and D). Briefly explain your answer using economic reasoning. (10 marks)
- 1.3. Briefly explain what do you mean by scarcity and why this concept is important in economic analysis specific to health care. (15 marks)

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2.
 - 2.1. Explain briefly what is meant by sampling bias. (10 marks)
 - 2.2. List the sampling methods that can be used in cross sectional studies. (05 marks)
 - 2.3. If you want to study patient satisfaction among diabetic clinic attendees in hospitals in a district what would be the sampling method you would choose. Give reasons for your selection. (15 marks)

3.
 - 3.1. Identify and explain the steps in rational decision making process. Elaborate your answer by taking an example from medical administration field. (05 marks)
 - 3.2. Explain the advantages and disadvantages of group decision making. (10 marks)
 - 3.3. Explain the importance of leaning queuing theory/waiting line models by a medical administrator. (15 marks)

4. Developing an effective and efficient Performance Evaluation System for a Government Hospital is a complex and difficult task. However, there are some accepted principles/recommendations which can be followed when formulating such a system. Distinctly present these principles/recommendations which need to be followed in designing an effective and efficient performance evaluation system. (30 marks)

5. The Consultant Physician in your hospital informs you that a large number of patients diagnosed with Leptospirosis are admitted to medical wards every month. You find that there is an upward trend and most of the patients are from a particular agricultural area. It was evident that the majority of patients had not taken the prophylactic drugs given to them and they have not participated in the awareness programmes organized in the area.
 - 5.1. Based on above scenario construct a problem analysis diagram. (05 marks)
 - 5.2. What strategies would you adapt to overcome these problems? (10 marks)
 - 5.3. Briefly outline a project design using the logical framework for the above strategies. (15 marks)

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MSc (MEDICAL ADMINISTRATION) EXAMINATION – OCTOBER 2013

Date :- 9th October 2013

Time :- 9.30 a.m. – 11.30 a.m.

SECTION A

PAPER II

Answer **all** questions.

Answer each question in a separate book.

1. Describe the Pareto principle and its usefulness to Medical Administrators in order to perform their jobs effectively. (10 marks)
2.
 - 2.1. Enumerate the categories of risk waste generated by a large multidisciplinary tertiary care hospital. (05 marks)
 - 2.2. What are the treatment options available for each category. (05 marks)
3. Describe the procedure to be followed when a death occurs in a hospital for which an inquest is required. (10 marks)
4. Identify the key reasons to set up an effective records management system in an organization. (10 marks)
5. Discuss the usefulness of accreditation in improving quality of health care. (10 marks)
6. Write short notes on :
 - 6.1. Human Development Index (HDI) (05 marks)
 - 6.2. Standardized Mortality Ratio (05 marks)

Contd..../2-

7. Discuss market failure in health industry. (10 marks)
8. Write short notes on :
- 8.1. Out of pocket payment (05 marks)
 - 8.2. Importance of Continuous Professional Development (05 marks)
9. Write short notes on :
- 9.1. Lead time (05 marks)
 - 9.2. Buffer stock (05 marks)
10. Discuss the importance of
- 10.1. Lactation Management Centre (05 marks)
 - 10.2. Healthy Lifestyle Centre (05 marks)
11. Distinguish between corrective maintenance and preventive maintenance in relation to medical equipment management. (10 marks)
12. Write short notes on :
- 12.1. Opportunity cost (05 marks)
 - 12.2. Marginal cost (05 marks)
13. Write short notes on :
- 13.1. Child Mortality Rate in Sri Lanka (05 marks)
 - 13.2. Neonatal Mortality Rate in Sri Lanka (05 marks)
14. Outline the steps you will follow in developing a five year plan for a District General Hospital. (10 marks)
15. Write short notes on type I and type II error. (10 marks)

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MSc (MEDICAL ADMINISTRATION) EXAMINATION – OCTOBER 2013

Date :- 9th October 2013

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. What do you understand by productivity? (10 marks)

1.2. Explain five (05) ways of improving productivity with suitable examples related to a hospital setting. (20 marks)

2. What are the key components of employee evaluation and describe on their scientific importance? (30 marks)

3. As a Director of a Provincial General Hospital you are requested to prepare a mass casualty preparedness plan for the hospital.

3.1. List the components of the hospital mass casualty preparedness plan. (10 marks)

3.2. Explain briefly each component of such a plan. (20 marks)

4. A donor agency has approved a development loan to the Sri Lankan health sector. The disbursement of funds will be based on the performance measured by the disbursement linked indicators (DLI). Ministry of Health with the concurrence of the Ministry of Finance and the donor has agreed on eight such indicators, and targets set for each indicator for the next five years.

4.1. Discuss the usefulness of such an approach to disburse funds. (15 marks)

4.2. What will be the implications of such an approach on the overall health sector programme? (07 marks)

4.3. As a Provincial Director of Health Services what measures you will take to ensure that the targets are achieved in your province? (08 marks)

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5. Fairside Patient Transport Services operates as part of Fairside Community Health Trust. The service operates in Fairside and the local surrounding area, providing non-emergency patient transport services to the local residents. There is a fleet of ambulances that operate from a local depot. The service is supported by a team of administrative staff, based at the depot, that coordinate requests for transport from GPs and hospital staff. The budgetary performance of the service is assessed on a six monthly basis.

The budget for the service is calculated based on the number of patient miles. The performance report for the first six month period of the year is shown below:

**Fairside Patient Transport Service
Six months to 31 December
Performance Report**

	Budget	Actual	Variance
Number of patient miles	38,000	47,000	9,000
	£	£	£
Pay			
Depot Operations Doctor	21,000	21,500	500 A
Depot Assistant doctor	15,000	15,220	220 A
Drivers	108,120	120,000	11,880 A
Administrative assistants	74,000	89,000	15,000 A
Domestic staff	37,500	37,500	0
Total pay	255,620	283,220	27,600 A
Non Pay			
Diesel and vehicle costs	20,780	26,400	5,620 A
Medical consumables (disposable)	11,780	14,500	2,720 A
Medical equipment (non disposable)	15,000	7,500	7,500 F
Repairs and maintenance	33,725	39,266	5,541 A
Telephone expenses	9,500	9,600	100 A
Stationery costs	12,160	11,900	260 F
Heating and lighting of depot	6,000	5,900	100 F
Capital charge on premises	7,000	3,500	3,500 F
Total non pay	115,945	118,566	2,621 A
TOTAL EXPENDITURE	371,565	401,786	30,221 A

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The following set of assumptions was used in compiling the budget report:

- The Depot Operations Manager and the Assistant Manager are both paid an annual salary.
- The Drivers are paid according to a two tier system. There are 12 full-time drivers who are each paid an annual salary of £16,500. Each driver is paid an additional £20 per 1,000 total patient miles up to 40,000 total patient miles for jobs completed. Over 40,000 total patient miles, the rate increases to £30 per 1,000 total patient miles. In addition to this, when the total transport service achieves certain volumes a system of bonuses comes into operation.
- The cost of the repairs and maintenance are semi-variable. This is based on a fixed cost of £14,250 per annum. The remainder of the cost varies according to the number of patient miles.
- The cost of diesel and vehicles includes a licence cost of £170 per vehicle per annum. There are 12 vehicles. The diesel cost varies in relation to the number of patient miles.
- The cost of medical consumables depends upon the level of patient need. For budgeting purposes, the patients are grouped into four levels of dependency. The associated cost of these is:

Level	£ per 10 miles	% of budgeted patients
A	2.30	45
B	2.70	20
C	3.10	15
D	5.30	20

- The cost of non-disposable medical equipment is based on a lease charge. This is fixed and paid on a quarterly basis.
- The administrative assistants are employed by a local agency. One administrative assistant is required for each 10,000 patient miles per quarter. After activity reaches this threshold, an additional admin assistant is commissioned from the agency. The weekly cost of one administrative assistant is £740.
- Domestic staff are employed by the Trust and are charged to the depot at a total fixed rate of £1,500 per week.
- The cost of heating and lighting is fixed. The cost of stationery and telephone expenses is variable according to the number of patient miles.
- The capital charge is a fixed recharge from the Trust headquarters. This is done quarterly by journal entry.
- The period to 31st December is based on 25 weeks.

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- **Requirement for question 5**

- 5.1. Prepare and comment on a performance monitoring report for the six month period to 31st December that presents a more realistic view of the financial performance of the Fairside Patient Transport Service than the one presented above. (20 marks)
- 5.2. Identify the main points that should be considered when preparing budgetary control reports. (10 marks)

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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. What are the four (04) components of delegation? (05 marks)
 - 1.2. Explain why people are reluctant to delegate and reluctant to accept delegated duties. (05 marks)
2. Define five (05) productivity concepts. (10 marks)
3. Outline five (05) styles of Supervision. (10 marks)
4. Assume that you have been appointed as the Medical Superintendent of a Base Hospital which does not have a proper health education plan and your health education nursing officer seeks your guidance to prepare an annual health education plan. Outline the steps that you would suggest. (10 marks)
5. As the Director of a Teaching Hospital you noticed that considerable numbers of nurses are getting needle prick injuries every year. A newly appointed Infection Control Nursing Officer seeks your guidance regarding newly exposed staff.
What advice would you give the nursing officer to follow up? (10 marks)
6. Assuming that you are the Medical Superintendent of a Base Hospital and the newly appointed MO/Quality asks your advice for monitoring quality programme of the hospital.
Outline the key aspects and areas you would consider in this process ? (10 marks)

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7. What steps would you take as a Regional Director of health Services to obtain community participation in relation to vector borne disease control in your district. (10 marks)
8. Assume that you are the newly appointed Medical Superintendent of a District General Hospital and you intend to carry out inspection of your drug store. What areas would you consider in this process and how do you carry it out? (10 marks)
9. Describe the role to be played by the head of a tertiary care hospital to contain the development of antimicrobial resistance. (10 marks)
10. What are the best human resource management practices adapted to managing a work force? (10 marks)
11. Assume you are the Medical Superintendent of a Base Hospital and you wish to develop input, process and output indicators for the Medical Intensive Care Unit with the assistance of your staff.
- 11.1. What factors would you consider in this process? (05 marks)
- 11.2. Outline two indicators each to monitor the input process and output process. (05 marks)
- 12.
- 12.1. What do you mean by effective communication (05 marks)
- 12.2. List the barriers for effective communication in a hospital setting (05 marks)
13. Assuming that you are the Regional Director of Health Services and you intend to plan a cancer palliative care programme in your district. Outline the steps that you would take in developing the plan. (10 marks)
14. You are the Medical Superintendent of a District General Hospital and you have noticed that a lot of non-medical appliances are nonfunctional.
- What are the possible reasons and how do you overcome this problem? (10 marks)
15. Assuming you are the Director of a Teaching Hospital and you have received a large number of new minor staff to your hospital. What steps would you take into consideration to design an in-service training programme? (10 marks)