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POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MD (MEDICAL ADMINISTRATION) PART I EXAMINATION
(2011 PROSPECTUS) – JULY 2020

Date :- 2nd July 2020

Time :- 9.00 a.m. – 12.00 noon

PAPER I

Answer question **one (01)** and **three (03)** other questions.
Answer each question in a separate book.

1.

1.1. During the COVID-19 epidemic it is reported that a large number of cases started presenting from a navy camp. You are appointed to carry out a study to find the possible factors that would have lead to this situation.

1.1.1. Discuss the study design to carry out this study.

(25 marks)

1.1.2. How will you control confounders and biases in the study?

(15 marks)

1.2.

1.2.1. For the following data; 3,6,9,10,15,28,21,27,42,84, draw a stem and left plot.

(05 marks)

1.2.2. The weight of 36 students were normally distributed with a mean of 58 kg and a standard deviation of 18 kg. Calculate the probability of;

(a) A random sample of 9 students having an average weight greater than 70 kg.

(05 marks)

(b) An individual student was chosen at random having a weight greater than 70 kg.

(05 marks)

1.2.3. A test has a mean score of 150 and a standard deviation of 20. If a student's z-score is 1.50, what will be his score on the test?

(10 marks)

1.2.4. A researcher is trying to examine the effects of two different teaching methods. Researcher divides 20 students into two groups of 10 each. For group 1, the teaching method is using fun games. Whereas, for group 2 the teaching method is using software. After 20 minutes lecture to both groups, a test was carried out for all the students. Researcher wants to calculate if there is a significant difference in the scores of both groups.

Use the following to answer the two questions.

Significance level	= 5%, two tailed
Mean test score for group 1	= 10
Mean test score for group 2	= 7
Standard error	= 0.94

- (a) Find the value of t-statistic. (05 marks)
- (b) Is there a statistically significant difference in the scores of the two groups. (10 marks)
2. "Sri Lanka's considerable health sector achievements are financed through a combination of general taxation and out of pocket payments by households" critically comment on the above statement. (40 marks)
3. As the Regional Director of Health Services, discuss how you will use the six building blocks of the WHO Health Systems Framework to assess the performance of health services in your area. (40 marks)
- 4.
- 4.1. Define Bioethics. (08 marks)
- 4.2. Describe five (05) ethical principles related to clinical ethics. (12 marks)
- 4.3. In which situations ethical dilemmas can arise in a hospital, discuss giving two (02) examples in a hospital setting? (20 marks)
5. Critique the statement: "Policy making is purely a political process which is always linear" (40 marks)
- 6.
- 6.1. Explain the term "Equipment Availability"? (05 marks)
- 6.2. Describe different sources of downtime and what measures would you take to improve equipment availability in a hospital. (10 marks)
- 6.3. Discuss the importance of "Reliability" and "Maintainability" concepts for management of medical equipment. (25 marks)