

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

SELECTION EXAMINATION FOR MD (COMMUNITY
MEDICINE/COMMUNITY DENTISTRY) – MARCH 2017

Date :- 30th March 2017

Time :- 1.00 p.m. – 2.00 p.m.

Answer **all** questions.

Answer each question in a separate book.

1. The Ministry of Health is planning a national study on the prevalence of behavioural risk factors for cervical cancer. It is necessary to obtain a representative sample from the urban, rural and estate sectors in Sri Lanka. The sample size should be 1% of the total female population between 30-49 years of age. The total female population in this age group is approximately three million.
 - 1.1. Describe the steps of a suitable sampling technique to fulfill the requirements of this study giving the rationale for each step. (40 marks)
 - 1.2. Describe two (02) advantages of obtaining a sample of this size for the study. (10 marks)

Having completed the study, a risk score on a 0 – 100 scale was calculated to determine their risk levels, which was found to be normally distributed.

- 1.3. State the different methods that would have been considered to determine that the risk scores were normally distributed. (30 marks)
- 1.4. Indicate with reasons, the appropriate statistical test to compare the risk scores among the three sectors. (20 marks)

Contd..../2-

2. A researcher is planning a randomized controlled trial to determine the effectiveness of e-health promotion to reduce the consumption of fast food among young adults between 20-24 years of age. Only the intervention group will receive e-health messages on their mobile telephones. The data collection tool will be a food frequency questionnaire that has to be completed weekly, on-line using the mobile telephone over a period of three months by both the intervention and control groups.
- 2.1. State appropriate inclusion and exclusion criteria for the study population. (20 marks)
 - 2.2. Describe the advantages of using mobile technology for data collection in this study. (20 marks)
 - 2.3. Indicate the factors that could affect the validity of data collected. (30 marks)
 - 2.4. Describe the methods that can be taken to reduce confounding in this study. (30 marks)