



INSTITUTE OF INDIGENOUS MEDICINE, UNIVERSITY OF COLOMBO

DEGREE OF BACHELOR OF AYURVEDA MEDICINE AND SURGERY

LEVEL II FIRST SEMESTER 2ND SUPPLEMENTARY EXAMINATION

APRIL- MAY 2022

SW 2101- RESEARCH METHODOLOGY & BIO STATISTICS

26 APR 2022

of Colombo

Date: 26.04.2022

Time: 09.00 AM – 10.00 AM

Answer all questions.

Index No

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Part I - Structured Questions

1.

1.1 What do you mean by a “research “?

(04 Marks)

[Dotted lines for answer 1.1]

1.2 What are the sequential steps in research?

(08 Marks)

[Dotted lines for answer 1.2]

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1.3 Briefly explain the role of research in community medicine. (04 Marks)

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1.4 Name the types of sampling. (04 Marks)

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2.1 What is the importance of 'Literature Review' in research? (04 Marks)

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2.2 Mention any three (03) methods of primary data collection in research. (03 Marks)

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2.3 Name the ethical issues concerning research participants. (03 Marks)

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2.4 What are the main considerations when selecting a research problem? (04 Marks)

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2.5 Explain the terms 'raw data' and 'arranged data'. (06 Marks)

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Part II – Essay Question

1.

Following table presets the weight of teenage girls in a sample of girls selected for community research. By using the given data answer the below questions.

Teenage girl's number	1	2	3	4	5	6	7	8	9	10
Weight (in Kg)	80	98	110	86	90	65	90	100	75	65

Calculate the followings.

- 1.1 The mean. (05 Marks)
- 1.2 The mode. (04 Marks)
- 1.3 Median. (05 Marks)
- 1.4 Standard deviation. (05 Marks)
- 1.5 First quantile (Q1) (05 Marks)
- 1.6 Third quantile (Q3) (05 Marks)
- 1.7 Inter quantile range (IQR) (05 Marks)
- 1.8 What are the properties of normal distribution? (10 Marks)
- 1.9 An examiner was analyzed the final examination scores of students and found that, marks are normally distributed with the average score of 60 and standard deviation of scores are 5. In this batch if the lowest pass grade is 55 what percentage of batch is failing the exam? (08 Marks)
- 1.10 Find the proportion of student who score between 65 and 75 marks. (08 Marks)

$$\bar{x} = \frac{\sum f(x)}{\sum f}$$

$$s = \sqrt{\frac{n \sum fx^2 - (\sum fx)^2}{n(n-1)}}$$

(Z score = 2.4) is 0.4918, Z score = 1 is 0.3413, Z score = 3 is 0.4987, Z score = 2.4 is 0.4918, Z score = -0.6 is 0.2257 and Z score = 1.6 is 0.6709).

Date: 26.04.2022
