

UNIVERSITY OF RUHUNA - FACULTY OF ALLIED HEALTH SCIENCE OF FEB 2020 DEPARTMENT OF MEDICAL

DEPARTMENT OF MEDICAL LABORATORY SCIENCE

Year End Examination Year 2 - 8th Batch

STATISTICS & RESEARCH METHODOLOGY MLS 2102 (Theory I)

Date: 09th July 2018 Time: 10.00 am - 12.00 noon

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Structured Essay Questions - Answer all questions
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1.1 Give ONE example to illustrate each of the following terms used in Medical Statistics
a) Descriptive Statistics (20 marks)
b) Measures of Central Tendency (20 marks)

	c) Systematic Sampling (20 marks)
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	d) The correlation coefficient is negative (20 marks)
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1.	.2 Explain briefly the term "Standard Normal Distribution" (20 marks)
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2.	A study was conducted to determine whether there is any association between CKD and Serum Creatinine level (SC level 0.6 to 1.4 mg/dL is considered normal). A sample of 100 patients with CKD and another sample of 100 people without CKD were tested for their SC level. The mean value of SC in CKD patients was 2.5 mg/dL (SD = 1 mg/dL). Among people without CKD the corresponding value was 1.3 mg/dL (SD = 1.2 mg/dL)
2.1	List two variables in this example and identify the scale of measurement of each of those variables (40 marks)
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2.2	Calculate 95% Confidence levels of the mean SC in CKD patients (30 marks)
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	In which group could you see a greater variation of SC data and why?
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	In which group could you see a greater variation of SC data and why? (30 Marks)
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Compare Qualitative and Quantitative research approaches with respect to their
research designs, sample selections and expected outcomes (100 marks)
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