

FACULTY OF ALLIED HEALTH SCIENCES UNIVERSITY OF RUHUNA Department of Medical Laboratory Science

Year End Examination, Year 1 - 10th Batch - 2019 Basic Statistics (MLS 1105) – Theory II (SEQ)

Friday 08th February 2019

Time: 10.00 a.m. - 12.00 noon

Duration: 2 hours

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INDEX NO:.....

** Scientific calculators are allowed to use. Provide z table and chi-square table

Answer all 4 questions (two hours)

1. Fasting plasma glucose, Postprandial Blood Glucose and HbA1c values (mg/dL) of a group of 6 patients are given below.

FPG	PPBG	HbA1c
107.5	178.1	7.6
134.8	266.1	7.8
177.8	252.8	8.9
119.4	232.4	7.1
181.4	199.1	8.1
148.9	162.5	8.3

1.1 Calculate the range of the values of the three variables. (20 marks)

1.2 Which variable has the widest range?	(30 mar)
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 Serum creatinine values of a sample of 100 chronic kid taken to estimate the average (man) and the sample of 100 chronic kid 	ney disease (CKD) patients were
 Serum creatinine values of a sample of 100 chronic kid taken to estimate the average (mean) and inter-quartile 	ney disease (CKD) patients were range.
 2. Serum creatinine values of a sample of 100 chronic kid taken to estimate the average (mean) and inter-quartile 2.1 List four possible variables in the above study. 	ney disease (CKD) patients were range. (20 mark
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2.2 Identify scales of the measurements for each of the variables that you have mentioned (20 marks) of (20 marks)

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.3 What is/are	the statistic/s	used in the above	e study?	(30 marks)
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.4 What will h	appen to the	standard error II v	we increase the sample	(30 marks)
1.1				
A study was co	nducted using al exercise (P	g a sample of 100 (E) and high blood	patients to see whether d pressure. Results are	there is a relationshi given below.
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etween physic		Blood	l Pressure	
etween physic		Blood Low	l Pressure High	
petween physic	Yes	Blood Low 30	l Pressure High 20	
petween physic	Yes No	Blood Low 30 20	l Pressure High 20 30	

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	3.2	Calculate expected values for the observed values.	(40 marks)
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	3.3	Test the null hypothesis at 5% level and write your conclusion.	(40 marks)

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	(104)
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4.1 descriptive statistics	
4.1. descriptive statistics(25 marks)	
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4.2. quota sampling	(25 marks)
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4.3 uses of Statistics in Medical laboratory Sciences	(25 marks)

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	4.4. Standard Error (25 marks)	(103)
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