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UNIVERSITY EXAMINATIONS

2021/2022 ACADEMIC YEAR

THIRD YEAR

SPECIAL/SUPPLEMENTARY EXAMINATION

FOR THE DEGREES OF BCR AND BSW

COURSE CODE: SCR 326

COURSE TITLE: SOCIAL STATISTICS

DATE: 24TH NOV 2022

TIME: 8-10 AM

INSTRUCTIONS TO CANDIDATES

Answer Question One and any other TWO Questions

TIME: 2 Hours

This Paper Consists of 4 Printed Pages. Please Turn Over.

QUESTION ONE

- a) Define the following terms
- i. Statistics (2 marks)
 - ii. Frequency (2 marks)
 - iii. Hypothesis (2 marks)
- b) The age at death in a certain village was recorded as follows
 38,65,46,68,50,65,39,52,45,55,39,55,60,53,46,61,43,42,56,42,56,42,52,49,51,34,51,62,59,
 35,47,53,58,55,48,48,48,58,54,60,47,52,50
- i. Prepare a frequency distribution table with the first class 30-34 (4 marks)
 - ii. On the grid provided, draw a frequency polygon to represent the data(4 marks)
- c) Differentiate between the following terms:
- i. Correlation and regression (2 marks)
 - ii. Parameter and statistics (2 marks)
 - iii. Histogram and bar graph (2 marks)
- d) The following table gives the number of employees and their weekly production

No. of employees	62	92	70	50	86
Weekly production	800	900	840	775	875

Use it to compute Spearman rank order correlation coefficient and interpret your results (7 marks)

- e) Inter-quartile range is a better measure of dispersion compared to range. Discuss. (3 marks)

QUESTION TWO

- a) Estimate the mean, median and mode for the following distribution (10 marks)

Class	5-9	10-14	15-19	20-24	25-29	30-34	35-39
Frequenc y	5	12	32	40	16	9	6

- b) Estimate the mean absolute deviation and standard deviation for the following distribution (10 marks)

Class	5-9	10-14	15-19	20-24	25-29	30-34	35-39
Frequency	5	12	32	40	16	9	6

QUESTION THREE

- a) Compute the correlation coefficient of the following distribution (10 marks)

X	47	46	27	8	7
Y	42	47	22	7	12

- b) Find the line of best fit by least squares method of the following distribution (10 marks)

X	4	7	3	6	10
Y	5	12	4	8	11

QUESTION FOUR

- a) Distinguish between primary data and secondary data (2 marks)
b) Discuss any four probability sampling methods (12 marks)
c) There is rampant abuse of social statistics. Discuss any three of such abuses (6 marks)

QUESTION FIVE

- a) What is the difference between null and alternative hypothesis? (2 marks)
b) State any four differences between parametric and non-parametric tests (4 marks)
c) Discuss the steps undertaken in hypothesis testing (14 marks)