

D 53019

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Name.....

Reg. No.....

**THIRD SEMESTER B.VOC. DEGREE EXAMINATION
NOVEMBER 2023**

Logistics Management

GEC 3BS 09—BUSINESS STATISTICS

(2018 Admissions)

Time : Three Hours

Maximum : 80 Marks

Part A*Answer all questions.**Each question carries 1 mark.*

1. If the correlation between two variables is zero, it implies that :
 - a) Two variables are independent.
 - b) Two variables do not have negative correlation.
 - c) The two variables are dependent.
 - d) The two variables are uncorrelated.
2. Which one among the following is small sample ?
 - a) 5.
 - b) 10.
 - c) 29.
 - d) All of the above.
3. Rank correlation co-efficient was discovered by :
 - a) Bowley.
 - b) Spearman.
 - c) Karlpearson.
 - d) Fischer.
4. _____ is the process of predicting the variable from the other variable correlation.
5. Regression equation is also named as :
 - a) Prediction equation.
 - b) Estimating equation.
 - c) Line of average relationship.
 - d) All the above.

Turn over

6. If b_{yx} is positive then b_{xy} :
- a) Positive.
 - b) Negative.
 - c) Zero.
 - d) 1.
7. The range of simple correlation co-efficient is :
- a) 0 to ∞ .
 - b) $-\infty$ to $+\infty$.
 - c) 0 to +1.
 - d) -1 to +1.
8. _____ is the grouping of related facts into various classes.
- a) Classification.
 - b) Tabulation.
 - c) Both a and b.
 - d) None of these.
9. The number of times each occurs is called _____.
10. Sampling is simply the process of learning about the population on the basis of a part of the universe or population called _____ drawn from it.

(10 × 1 = 10 marks)

Part B (Short Answer Questions)

*Answer any **eight** questions.*

Each question carries 2 marks.

11. What is independent variable ?
12. What is statistical data ?
13. What is Median ?
14. What is Mean ?
15. What is standard deviation ?
16. What you mean by sampling ?
17. What is Regression ?
18. What is limited degree of correlation ?
19. Explain the components of time series analysis ?
20. What is dependent variable ?

21. What you mean by sample size ?
 22. What is no correlation ?

(8 × 2 = 16 marks)

Part C (Short Essay Questions)

*Answer any six questions.
 Each question carries 4 marks.*

23. Explain the different types of Bar diagrams.
 24. Write a brief note on scope and limitations of statistics
 25. Write a brief note on histogram.
 26. What is data collection? Explain the methods for collection of primary Data
 27. Write a brief note on Karl Pearson's co-efficient of correlation.
 28. What is Spearman's rank correlation ? Explain the merits and demerits of Spearman's Rank correlation.
 29. Differentiate between Correlation and Regression.
 30. Calculate Karl Pearson's co-efficient of correlation :

x	:	2	3	4	5	6	7	8
y	:	4	5	6	12	9	5	4

31. Calculate Karl Pearson's correlation co-efficient between x and y from the following data :

$$n = 15, \sum x = 40, \sum x^2 = 240, \sum y = 32, \sum y^2 = 160, \sum xy = 180.$$

(6 × 4 = 24 marks)

Part D (Essay Questions)

*Answer any two questions.
 Each question carries 15 marks.*

32. The ranking of 10 individuals at the start and at the finish of a course of training are as follows

Individuals	:	A	B	C	D	E	F	G	H	I	J
Rank before	:	1	6	3	9	5	2	7	10	8	4
Rank after	:	6	8	3	2	7	10	5	9	4	1

Calculate Spearman's Rank correlation co-efficient.

Turn over

33. What is data collection ? Explain different sources of data collection ?
34. Explain the important bases and types of classification.
35. Explain the need of representing data graphically.

(2 × 15 = 30 marks)