QP CODE

B1027

Enrollment Number: ……

Name: ……

FOUR YEAR UNDER GRADUATE DEGREE EXAMINATIONS, APRIL 2025

First Semester

B.B.A (Honours)

SGB24ST101MI – Business Statistics

(2024 July admissions)

Time: 3 Hours **Max Marks: 70**

Section A

Answer any Eight of the following questions in a word or sentence each. Each question carries 1 mark.

1. Which are the categories of data?
2. What is Simple Regression?
3. What is Mode?
4. What is Multiple Correlation?
5. What is Secular Trend?
6. What is Price Index?
7. Which are the popular methods of Statistical investigation?
8. What is irregular component in Time Series?
9. State the meaning of Scatter Diagram in Correlation Analysis.
10. What is P_0 represents in Index Numbers?

(1X8=8)

Section B

Answer any six of the following questions in two or three sentences each. Each question carries 2 marks.

11. What is Quota Sampling? When it is applied?

12. What is Geometric Mean? How do you compute Geometric Mean?
13. State the difference between Linear and Non Linear Regressions.
14. Mention the commonly used measures of dispersion.
15. Explain Moving Average in connection with Time Series Analysis.
16. What is Census Method?
17. What is Chain Base Index Numbers?
18. State the difference between Partial and Total Correlation.

(2X6=12)

Section C

Answer any six of the following questions in one page each. Each question carries 5 marks.

19. Explain the major differences between Correlation and Regression
20. Explain the Components of Time Series
21. What are the importance of Index Numbers?
22. Find out the Probable Error if r = 0.6 and n = 64. Also calculate Standard Error.
23. Calculate Karl Pearson's Correlation Coefficient between X and Y from the following :

    N = 10 $\quad \Sigma X = 35 \quad \Sigma X^2 = 203 \quad \Sigma Y = 28 \quad \Sigma Y^2 = 140 \quad \Sigma XY = 168$
24. What is Regression? Which are the properties of Regression Coefficients?
25. Calculate Range and Co-efficient of Range from the following details :

Marks	**10**	**20**	**30**	**40**	**50**	**60**	**70**	**80**
No. Of students	**3**	**6**	**5**	**7**	**9**	**4**	**8**	**7**

26. Calculate Arithmetic Mean from the following :

Marks	**0-10**	**10-20**	**20-30**	**30-40**	**40-50**
No of Students	**5**	**3**	**7**	**25**	**20**

(5X6=30)

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Section D

Answer any two of the following questions in three pages each. Each question carries 10 marks.

27. Elaborate on the Methods of Statistical Investigation with its Merits and Demerits
28. Obtain two Regression Equations using least Square Method for the data given below

X	**5**	**10**	**15**	**20**	**25**
Y	**20**	**40**	**30**	**60**	**50**

29. Calculate Rank Correlation Coefficient

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

30. Calculate Long term Trend and Short term Oscillations with a three year period from the following data

Year	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Output	**1632**	**1557**	**1652**	**2100**	**2620**	**3120**	**3236**	**3562**

(10X2=20)