| Roll No.: |  |  |  |  |  |  |
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## G. S. College of Commerce \& Economics, Nagpur

An Autonomous Institution
(Affiliated to Rashtrasant Tukadoji Maharaj Nagpur University)
First Semester Bachelor of Business Administration Examination (CBCS) BUSINESS MATHEMATICS AND STATISTICS
(BBASFC 1.0)
Time: 3 Hours
Maximum Marks: 80
Note: All Questions are compulsory
Q.1. A) Prepare exclusive continuous series.

Marks (upto)
10
20
30
40
50
60
70
80
OR

No. of Students
25
40
60
75
95
125
190
240
B) The marks out of 100 scored by 40 students in the subject of statistics are given below:

$$
\begin{array}{llllllllll}
56, & 78, & 62, & 37, & 54, & 39, & 62, & 60, & 47, & 42 \\
28, & 82, & 38, & 72, & 62, & 44, & 54, & 42, & 50, & 52 \\
42, & 56, & 57, & 65, & 68, & 47, & 42, & 56, & 47, & 48 \\
56, & 56, & 56, & 66, & 42, & 52, & 48, & 48, & 53, & 68
\end{array}
$$

Construct frequency table and prepare continuous series with class intervals of 25-29, 3024 till 80-84.
Q. 2 A) Calculate Mean, Mode and Median from the following data.

Weight (In Pounds) No. of Persons
[More than]

| 90 | 105 |
| :---: | :---: |
| 100 | 100 |
| 110 | 80 |
| 120 | 40 |
| 130 | 28 |
| 140 | 22 |
| 150 | 14 |
| 160 | 10 |
| 170 | 3 |

## OR

B) Find out the Co-efficient of Skewness by using Karl Pearson's formula.

| Marks (more than) | No. of Students |
| :---: | :---: |
| 30 | 200 |
| 40 | 150 |
| 50 | 80 |
| 60 | 65 |
| 70 | 50 |
| 80 | 40 |
| 90 | 10 |

Q.3. A) Find out Co-efficient of Correlation of the following data.

Marks in statistics Marks in Accountancy

Q. 4. A) Calculate the Compound Interest and also the difference in Compound Interest on Rs.

900/- for 1 year at $20 \%$ p.a.

1. When it is Compound Quarterly
2. When it is Compound Half Yearly.

OR
B) The ratio between the ages of mother and son is 5:2. If the Sum of their ages is 42 years, then find the age of mother and age of son.
Q. 5 Answer the following questions in about 75-100 words: (Any two)
A) Define the term statistics and write functions of the statistics.
B) Explain the difference between Primary Data \& Secondary Data.
C) Write in brief about the different types of Diagrams and Graphs used to present the data.
Q. 6 Answer the following questions in about 75-100 words: (Any two)
A) Explain in detail various measures of Central Tendency.
B) Explain the concept of Standard Deviation and Coefficient of Variation.
C) Explain the concept of Skewness and Quartile Deviation.
Q. 7 Answer the following questions in about 75-100 words: (Any two)
A) What is Correlation? Write the scope of Correlation Analysis.
B) What is Probable Error? Explain the use of Probable Error.
C) Write the difference between Correlation and Regression Analysis.
Q. 8 Answer the following questions in about 75-100 words: (Any two)
A) Write in detail about the application of Quantitative Techniques to business world.
B) Write the advantages and disadvantages of Quantitative Techniques.
C) Write in brief about the functions of Quantitative Techniques.
Q. 9 Answer the following questions in about 3-4 sentences.
A) Give limitations of statistics.
B) Explain the concept of Harmonic Mean.
C) Define the concept of Rank Correlation
D) Write the limitations of Quantitative Techniques.


