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**GS-517**

II Semester B.B.A. Examination, May/June - 2019

**BUSINESS ADMINISTRATION**

2.4 Quantitative Methods for Business - II

(CBCS) (Fresh+Repeaters) (2014-15 &amp; Onwards)

Time : 3 Hours

Max. Marks : 70

**Instructions :** Answer should be written in English only.**SECTION - A**

- I. 1. Answer **any 5** sub-questions. Each sub-question carries **2** marks : **5x2=10**
- Mention any 4 objectives of Statistics.
  - How do you Calculate Mode when it is undefined ?
  - What is CV, given the mean 56, variance 144 ?
  - State any 4 types of Measures of Central tendencies.
  - $Q_1$  is 20,  $Q_3$  is 45, what is its co-efficient of quartile deviation.
  - Define Correlation.
  - What do you mean by discrete series ?

**SECTION - B**

- II. Answer **any 3** sub-questions. Each sub-question carries **6** marks. **3x6=18**
- Briefly explain the uses of Index numbers.
  - Calculate Quartile deviation and its co-efficient.  
 CI : 10-19 20-29 30-39 40-49 50-59 60-69 70-79  
 f : 05 12 20 28 15 12 07
  - Calculate Rank correlation from the following data :  
 Marks in FA : 58 62 68 70 75 79 80 90  
 Marks in QMB : 85 82 70 60 50 40 20 30
  - The mean and standard deviation of 2 brands of bulbs are given below.  

	Brand A	Brand B
$\bar{X}$	2000 hours	1640 hours
$\sigma$	200 hours	180 hours

 Calculate the co-efficient of variation for the two brands and which brand is more consistent ?

**P.T.O.**



6. Determine the mode under grouping and analysis method.

Variable : 58 60 64 68 70 72 75 78 80

Frequencies : 20 24 32 28 20 16 34 10 08

### SECTION - C

- III. Answer **any 3** questions from the following. Each question carries **14** marks :

**3x14=42**

7. Calculate Mean, Median and Mode from the following.

Marks : 10-20 20-30 30-40 40-50 50-60 60-70 70-80

Students : 20 30 35 48 40 32 25

8. Calculate Karl Pearson's co-efficient of correlation between Age and % of players of students.

Age(x) : 16 17 18 19 20 22 24

%players(y) : 70 60 68 50 48 40 35

9. The following table shows the Age and Blood pressure of 6 persons.

Age(x) : 52 45 36 72 65 47

Blood pressure(y) : 90 80 85 80 78 60

obtain two regression equations. Also find the expected blood pressure of person who's age is 60 years.

10. Construct Fisher's Index number and verify TRT & FRT.

Commodity	2017		2018	
	Price	Value	Quantity	Value
A	10	150	12	240
B	12	144	14	140
C	14	140	16	160
D	8	160	10	100
E	6	160	8	240
F	4	120	6	120

11. Convert the following distribution into more than cumulative and less than cumulative curve and find median graphically.

Marks : 20-30 30-40 40-50 50-60 60-70 70-80

No. of students: 15 25 30 45 35 20