Reg. No. ☐☐☐☐☐☐☐☐☐

BBABMC 257/BBMBMC 257

Credit Based Fourth Semester B.B.A./B.B.M. Degree Examination, April/May 2018
(2012 Scheme)
BUSINESS STATISTICS

Time : 3 Hours

Max. Marks : 80

Instructions : 1) Only simple calculators are **allowed**.
2) Log tables are provided if **necessary**.

SECTION – A   (1×10=10)
(One mark each)

Answer **any ten** questions.

1. a) Write any two sources of secondary data.
   b) Mention various types of classification.
   c) If mean and coefficient of variation are 25 and 16%. Find the standard deviation.
   d) State one use of diagrammatic representation of data.
   e) Find the geometric mean of 4 and 16.
   f) Write down the empirical relation between mean, median and mode.
   g) In a bivariate data, the regression coefficients are – 7.3 and – 0.11. Find the coefficient of correlation.
   h) Write any one property of coefficient of correlation.
   i) Give two examples of seasonal variation.
   j) Which index number is used for the evaluation of purchasing power of money ?
   k) In stem and leaf plot, which digit of given number is taken for stem ?
   l) If Laspeyre's index number is 223.36 and Paasche's index number is 226.80. Find Fisher's index number.

SECTION – B   (5×5=25)
(Five marks each)

Answer **any five** questions.

2. What are the functions of statistics ?

P.T.O.

3. Calculate Harmonic mean from the following data.

Class :	10 – 12	12 – 14	14 – 16	16 – 18	18 – 20
Frequency :	2	18	20	13	7

4. Calculate median for the following.

Marks :	40 – 50	50 – 60	60 – 70	70 – 80	80 – 90
No. of Students :	4	12	28	16	10

5. From the following data calculate quartile deviation and coefficient of quartile deviation.

x :	111	113	118	123	140	142	144	146
f :	23	32	43	26	7	5	2	1

6. Compute coefficient of rank correlation.

Marks in Statistics :	25	43	27	35	54	61	37	45
Marks in Maths :	35	47	20	37	63	54	28	40

7. Compute the cost of living index number from the following information.

Item	Price Index	Group Weight
Food	200	20
H.R.	250	10
Clothing	150	5
Fuel	250	10
Misce.	200	5

8. Compute trend values by finding 3 yearly moving averages for the following series.

Year:	2010	2011	2012	2013	2014	2015	2016	2017
Value :	290	270	260	280	240	250	220	240

SECTION – C

(15×3=45)

(15 marks each)

Answer **any three**.

9. a) Draft a blank table to show the population of a city according to

    1) Sex : Male, Female.

    2) Religion : Hindu, Muslim, Christian.

    3) Year : 2016, 2017.

                                                                 5

  b) Calculate mean deviation from mean.   5

Age :	20 – 30	30 – 40	40 – 50	50 – 60	60 – 70
Person :	11	23	40	15	10

  c) The mean weight of 150 students in a certain class is 60 kgs. The mean weight of boys in the class is 70 kgs and that of girls is 55 kgs. Find the number of boys and number of girls in the class.

                                                                 5

10. a) The following table gives the weekly wage of workers of two factories A and B.

Weekly wages (Rs.) :		20 – 30	30 – 40	40 – 50	50 – 60	60 – 70	70 – 80	80 – 90
Number of workers :	Branch A :	7	15	22	30	20	4	2
	Branch B :	15	30	44	60	30	14	7

Find :

1) Which factory pays greater average wage ?

2) In which factory is there greater variability in individual wages ?   **10**

b) On the two successive trading days, the sale price of shares of a company in the stock market were noted. The five number summary of sale price on these days are listed below. Draw box and Whisker Plot.   **5**

Selling price per share		Minimum	Lower quartile	Upper quartile	Maximum	Median
	Day 1	560	565	580	600	570
	Day 2	585	590	605	620	600