(7 pages) **Reg. No. :** .....

Code No. : 22741 E **Sub. Code : JMBA 12/ SMBA 12**

B.B.A. (CBCS) DEGREE EXAMINATION, NOVEMBER 2018

First Semester

Business Administration – Main

BUSINESS STATISTICS

(For those who joined in July 2016 and afterwards)

Time : Three hours Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. A sample must possess _____

   (a) Homogeneity

   (b) Independence

   (c) Adequacy

   (d) All the above

2. Histogram is a graph of _____

   (a) Frequency distribution

   (b) History

   (c) Mean values

   (d) Cumulative frequency

3. Which of the following is true?

   (a) Mean = 3 median – mode

   (b) Mode = 3 median – 2 mean

   (c) Median = 3 Mode – 2 mean

   (d) Mean = 3 median – 2 mode

4. When an observation in the data is zero, then its geometric mean is

   (a) Positive (b) Negative

   (c) 1 (d) 0

5. Variance is _____ standard deviation.

   (a) The square of

   (b) Square root of

   (c) Equal to

   (d) Less than

6. The sum of squares of deviations is least when it is measured from _____

(a) Mean (b) Median

(c) Mode (d) Zero

7. Correlation coefficient lies between _____

(a) 0 and 1 (b) –1 and 0

(c) –10 and +10 (d) –1 and +1

8. $bxy.by\ x$ =_____

(a) 1 (b) r

(c) r^2 (d) 0

9. Index numbers are expressed in _____

(a) Any integers (b) Percentage

(c) Fractions (d) Ratios

10. Seasonal variations repeat during a period of _____

(a) Five years (b) Two years

(c) One years (d) Ten years

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Explain the scope of statistics.

Or

(b) Discuss about any two methods of sampling.

12. (a) Explain the graphic representation of data.

Or

(b) List some merits and demerits of arithmetic mean.

13. (a) List out the properties of a good measure of variation.

Or

(b) Compute the mean deviation for the following data.

x	2	4	6	8	10
f	1	4	6	4	1

14. (a) Write the significance of the study of correlation.

Or

(b) Two cards are drawn from a pack of cards at random. Find the probability that it will be a diamond and a heart.

15. (a) List the characteristics of index numbers.

Or

(b) Explain the seasonal variations.

PART C — ($5 \times 8 = 40$ marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Explain the different types of collecting data.

Or

(b) Discuss the uses of statistics in business and industries.

17. (a) How do we classify the data?

Or

(b) From the following data find the mean profit.

Profit/ Shop	100-200	200-300	300-400	400-500
No. of Shops	10	18	20	26
Profit/ Shop	500-600	600-700	700-800	
No. of shops	30	28	18	

18. (a) Estimate the standard deviation.

Class (x)	0-10	10-20	20-30	30-40
Frequency (f)	8	12	17	14

Class (x)	40-50	50-60	60-70
Frequency (f)	9	7	4

Or

(b) Find the coefficient of variation for the following data.

Wages (Rs.)	0-20	20-40	40-60	60-80	80-100
No. of workers	8	12	30	20	10

19. (a) Calculate the coefficient of correlation

X	57	59	62	63	64	65	55	58	57
Y	113	117	126	126	130	129	111	116	112

Or

(b) Find the two regression equations from the following data.

X	10	12	13	12	16	15
Y	40	38	43	45	37	43

20. (a) Calculate Index number using

(i) Laspeyer's method

(ii) Fisher's ideal formula.

	Base Year		Current year	
	Kilo	Rate	Kilo	Rate
Bread	10	3	8	3.25
Meat	20	15	15	20
Tea	2	2.5	3	23

Or

(b) Discuss about the estimation of trends.

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