Reg. No. :

# Code No. : 10077 E Sub. Code : SMCO 32/ AMCO 32

B.Com. (CBCS) DEGREE EXAMINATION, NOVEMBER 2021.

Third Semester

Commerce — Main

## **BUSINESS STATISTICS**

(For those who joined in July 2017 onwards)

Time : Three hours

(7 Pages)

Maximum : 75 marks

PART A —  $(10 \times 1 = 10 \text{ marks})$ 

Answer ALL questions.

Choose the best answers :

- 1. The word 'statistics' is used as
  - (a) Singular
  - (b) Plural
  - (c) Singular and plural
  - (d) None of the above

- 2. Method of complete enumeration is applicable is
  - (a) Knowing the production
  - (b) Knowing the quantum of export and import
  - (c) Knowing the population
  - (d) All of the above
- 3. Individual data is another wise called as ———
  - (a) Raw data (b) Discrete data
  - (c) Continuous data (d) Primary data
- 4. Extreme value have no effect on ———
  - (a) Average (b) Median
  - (c) Geometric mean (d) Harmonic mean
- 5. Which one of the given measures of dispersion is considered best?
  - (a) Standard deviation
  - (b) Range
  - (c) Variance
  - (d) Coefficient of variation
- 6. Out of all measures of dispersion, the easiest one to calculate is \_\_\_\_\_
  - (a) Standard deviation (b) Range
  - (c) Variance (d) Quartile deviation Page 2 Code No.: 10077 E

- 7. The value of correlation ratio varies from ———
  - (a) -1 to 1 (b) -1 to 0
  - (c) 0 to 1 (d) 0 to  $\infty$
- 8. The nature of correlation between two variables is known from ———
  - (a) Bar diagram (b) Pie diagram
  - (c) Pictogram (d) Scatter diagram
- 9. Index numbers are also known as ———
  - (a) Economic barometers
  - (b) Signs and guide posts
  - (c) Both (a) and (b)
  - (d) Neither (a) nor (b)
- 10. Base period for an index number should be
  - (a) A year only
  - (b) A normal period
  - (c) A period of distant past
  - (d) None of the above

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## PART B — $(5 \times 5 = 25 \text{ marks})$

### Answer ALL questions, choosing either (a) or (b) . Answer should not 250 words.

11. (a) State the importance of statistics.

#### Or

- (b) What are the limitations of statistics?
- 12. (a) The men age of a group of 100 persons was found to be 32.02. Later it was discovered that age 57 was misread as 27. Find the corrected mean.

#### $\mathbf{Or}$

- (b) There are two branches of a company, employing 100 and 80 persons respectively. If the arithmetic mean of the monthly salaries paid by the two companies are Rs. 275 and Rs. 225 respectively, find the arithmetic mean of the salaries of the employees of the companies as a whole.
- 13. (a) Calculate range and its co efficient from the following distribution.

Size: 60-63 63-66 66-69 69-72 72-75

Number: 5 18 42 27 8

Or

(b) What are the merits and demerits of range?

Page 4 Code No. : 10077 E [P.T.O] 14. (a) What are the uses of regression analysis?

Or

- (b) What are the uses of correlation?
- 15. (a) Explain the different types of index numbers.

Or

(b) Calculate index numbers from the following data by simple aggregate method taking prices of 2000 as base.

Commodity	Price per unit (in Rupees)	
	2000	2004
А	80	95
В	50	60
С	90	100
D	30	45

PART C — 
$$(5 \times 8 = 40 \text{ marks})$$

- Answer ALL questions, choosing either (a) or (b). Answer should not exceed 600 words.
- 16. (a) Explain the different methods of collection of primary data.

 $\mathbf{Or}$ 

(b) Briefly explain the different parts of a table.

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17. (a) In a class of 50 students 10 have failed and their average marks is 2.5. The total marks secured by the entire class were 281. Find the average marks of those who have passed.

 $\mathbf{Or}$ 

- (b) Calculate H.M. from the following data. Marks 30-40 40-50 50-60 60-70
  Frequency 15 13 8 6
  Marks 70-80 80-90 90-100
  Frequency 15 7 6
- 18. (a) Find the quartile deviation for the following data.

391, 384, 591, 407, 672, 522, 777, 733, 1490, 2488.

 $\mathbf{Or}$ 

(b) Calculate the standard deviation from the following data.

14, 22, 9, 15, 20, 17, 12, 11.

19. (a) Explain the different types of correlation.

Or

(b) Find Karl Pearson's coefficient of correlation from the following data between height of father (x) and son (y).

Х 64 6566 67 68 69 70 Y 66 68 7068 7267 65

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20. (a) Discuss the problems in the construction of index numbers.

## $\mathbf{Or}$

(b) From the following data, construct an index for 1998 taking 1997 as base by the average of price relative.

Commodity Price in 1997 Price in 1998

А	50	70
В	40	60
С	80	100
D	20	30

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