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 $\begin{array}{ccc} \textbf{Code No.: 24037 E} & \textbf{Sub. Code: AMBA 11/} \\ & \textbf{AMSL 11} \end{array}$

B.B.A. (CBCS) DEGREE EXAMINATION, NOVEMBER 2020.

First Semester

Business Administration/Shipping and Logistics-Main

BUSINESS STATISTICS

(For those who joined in July 2020 onwards)

Time: Three hours Maximum: 75 marks

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

Answer ALL questions.

Choose the correct answer:

- 1. Data collected from "Hindu" Newspaper is an example of
 - (a) Primary data
 - (b) Secondary data
 - (c) Primary and Secondary data
 - (d) None of these

2.	Total angle of the pie-ch	art is					
	(a) 45	(b) 90					
	(c) 180	(d) 360					
3.	In chronological classification, data are classified on the basis of						
	(a) Attributes	(b) Class interval					
	(c) Time	(d) Locations					
4.	Which of the following average?	ng is the most unstable					
	(a) Mode	(b) Median					
	(c) Geometric mean	(d) Harmonic mean					
5.	Range is —	_					
	(a) Large value + Smal	l value					
	(b) Large value – Small	l value					
	(c) Large value × Small value						
	(d) Large value / Small	value					
6.	Standard deviation is also called ————						
	(a) Root mean square d	eviation					
	(b) Root Deviation						
	(c) Sigma Square Devia	ation					
	(d) Positive Meandevia	tion					

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	(b) cannot be negative
	(c) can be either positive or negative
	(d) none of these
8.	The relationship between three or more variable is studies with help of ———————————————————————————————————
	(a) Positive
	(b) Negative
	(c) Linear
	(d) Multiple
9.	The circular test is satisfied by
	(a) Simple aggregative index
	(b) Passche's Index
	(c) Laspeyre's index
	(d) Kelly's index
10.	Seasonal variations respect during a period of
	(a) One year
	(b) Five year
	(c) Seven year
	(d) Three year

The co-efficient of correlation

(a) cannot be positive

7.

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

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

11. (a) Discuss the functions of statistics.

Or

- (b) Describe the methods of collecting primary data.
- 12. (a) Explain the different types of classification.

 O_{1}

(b) Calculate Harmonic Mean from the following data.

Size of	6	7	8	9	10	11
items						
Frequency	4	6	9	5	2	8

13. (a) Calculate quartile deviation and its coefficient of A's monthly earning for a year.

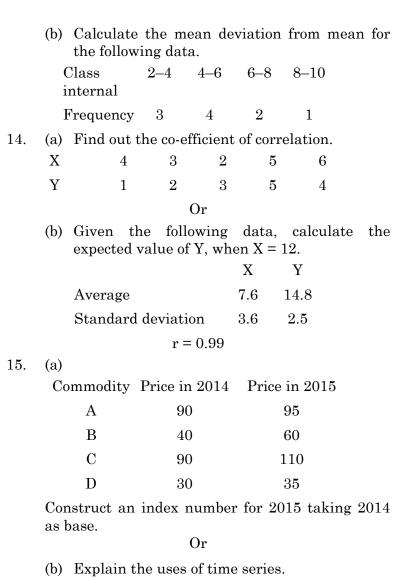
Month	1	2	3	4	5	6	7
Monthly	239	250	251	251	257	258	260
earning							

Month 8 9 10 11 12 Monthly 261 262 262 273 275 earning

Or

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

Answer ALL questions, choosing either (a) or (b) Each answer should not exceed 600 words.

16. (a) Describe the scope and uses of statistics in business.

Or

(b) Draw a multiple bar diagram for the following data.

Year	Sales	Gross profit	Net Profit
	(000)	(000)	(000)
2012	100	30	10
2013	120	40	15
2014	130	45	25
2015	150	50	25

17. (a) Calculate the mode from the following series.

Size of 0-5 5-10 10-15 15-20 20-25 25-30 30-35 35-40 40-45 item

Frequency 20 24 32 28 20 16 34 10 8

Or

(b) Find out the Geometric mean

Yield of $$ 7.5-10.5 $\,$ 10.5-13.5 13.5-16.5 16.5-19.5 19.5-22.5 22.5-25.5 25.5-28.5 wheat

No. of 5 9 19 23 7 4 1 farms

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18. (a) Calculate standard deviation for the following data.

Class Interval 5-10 10-15 15-20 20-25 25-30 Frequency 6 5 15 10 14 Or

(b) Prices of a particular commodity in five years in two cities are given below.

Price in city 'A'	Price in city 'B'
20	10
22	20
19	18
23	12
16	15

From the above data find the city which more stable prices.

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

Or

(b) Calculate co-efficient of correlation from the following data.

 x:
 12
 9
 8
 10
 11
 13
 7

 y:
 14
 8
 6
 9
 11
 12
 3

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20. (a) Calculate Index number through Bowley's Method form the following data.

2016 2017Commodity Price Quantity Price Quantity Α 10 3 8 3.25 В 20 15 15 20 \mathbf{C} 2 25 3 23 Or

(b) Calculate three yearly moving average of the following data.

Year: 2006 2007 2008 2009 2010 No. of 15 18 17 20 23 Students:

 Year:
 2011
 2012
 2013
 2014
 2015

 No. of
 25
 29
 33
 36
 40

 Students:

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