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Reg. No. :

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B 3 BA 12

B.B.A. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2010.

First Semester

Business Administration — Main

Paper II — BUSINESS STATISTICS

(For those who joined in July 2008 onwards)

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 1 = 10 marks)

Answer ALL the questions.

Choose the right answer.

1. Data collected first hand is known as
(a) Primary data (b) Secondary data
(c) Both (a) and (b) (d) None
2. Samples are chosen from
(a) population (b) respondents
(c) both (a) and (b) (d) none

3. A data with class interval is known as
(a) raw data (b) discrete data
(c) continuous data (d) primary data
4. The sum of ten values is 100, then the mean is
(a) 10 (b) 15
(c) 20 (d) 100
5. The formula for quartile deviation is
(a) $\frac{Q_3 - Q_1}{2}$ (b) $\frac{Q_3 + Q_1}{2}$
(c) $\frac{Q_3 / Q_1}{2}$ (d) $\frac{Q_3 \times Q_1}{2}$
6. The root mean square deviation from mean is
(a) Q.D. (b) M.D.
(c) S.D. (d) None
7. Positive correlation means that
(a) x and y are directly related
(b) x and y are inversely related
(c) both (a) and (b)
(d) none

8. When $P(A)$ and $P(B)$ are independent $P(A \cup B)$ is equal to
- $P(A) + P(B)$
 - $P(A) - P(B)$
 - $P(A) + P(B) - P(A \cap B)$
 - $P(A) \times P(B)$
9. Index number is a
- ratio
 - multiplier
 - divisor
 - none
10. A movement in a time series that repeats over a period of 6 months is known as
- secular trend
 - seasonality
 - cyclical movement
 - irregular movement

SECTION B — ($5 \times 5 = 25$ marks)

Answer ALL questions, choosing either (a) or (b) in 250 words.

11. (a) State the advantages of primary data.

Or

- (b) Explain the procedure for drawing a bar chart.

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12. (a) Explain inclusive and exclusive data.

Or

- (b) State the relation between mean, median and mode and explain the various methods of calculating mode.

13. (a) Find the value of range and its coefficient from the following data :

8, 10, 5, 9, 12, 11.

Or

- (b) Find mean deviation taken from mean :

42, 68, 74, 63, 65, 38, 44, 28, 18, 60.

14. (a) What is the chance that a leap year, selected at random will have 53 Sundays?

Or

- (b) Compute the regression equation of y on x :

x : 3 5 7 9 11 14 16

y : 20 19 17 14 13 9 12

15. (a) Explain the uses of Index numbers.

Or

- (b) Explain moving average.

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SECTION C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b) in 600 words.

16. (a) Define Statistics and explain its various uses.

Or

- (b) Draw a Histogram and Frequency polygon.

Size :	30-40	40-50	50-60	60-70	70-80
Frequency :	3	5	12	8	4

17. (a) Calculate mean, median and mode.

C.I. :	0-19	20-39	40-59	60-79	80-99
Frequency :	5	15	35	15	10

Or

- (b) Calculate A.M., G.M., and H.M.

x :	6	9	12	15	18
f :	7	12	19	10	2

18. (a) From the following data, calculate quartile deviation.

x :	351-500	501-650	651-800	801-950	951-1100
f :	48	189	88	47	28

Or

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- (b) From the following data state the team that is more consistent.

No. of goals scored in a match	No. of matches	
	Team A	Team B
0	5	4
1	7	5
2	5	5
3	3	4
4	2	3
5	3	3

19. (a) There are 17 balls, numbered from 1 to 17 in a bag. If a person selects one at random, what is the probability that the number printed on the ball will be an even number greater than 9?

Or

- (b) Calculate the rank correlation.

Marks in Statistics :	85	75	65	55	65	75	85
Marks in Accountancy :	55	65	75	85	75	65	55

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20. (a) Calculate the ideal index and show that it satisfies Factor and Time Reversal.

Commodity	2006		2007	
	Price	Quantity	Price	Quantity
A	5	10	4	12
B	8	6	7	7
C	6	3	5	4

Or

- (b) State and explain the various methods of ascertaining secular trend in a time series data.
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