K15U 0556
Reg. No. : $\qquad$
Name : $\qquad$

# I Semester B.B.A./B.B.A.R.T.M./B.B.A.T.T.M. Degree (CCSS - Reg./ <br> Supple./Improv.) Examination, November 2015 Complementary Course <br> 1C01 B.B.A./B.B.A.(R.T.M.)/B.B.A. (T.T.M.) <br> BUSINESS STATISTICS <br> (2014 Admn. Onwards) 

Time: 3 Hours
Max. Marks : 40

## SECTION - A

Answer the 4 questions. Each question carries $1 / 2$ marks.

1. Define statistics as a method.
2. What is Tabulation?
3. Explain class intervals.
4. What do you mean by two dimensional diagram?
SECTION - B

Answer any 4 questions. Each question carries 1 mark.
5. What is cartograms ?
6. Explain less than ogives.
7. Define a median.
8. Find out $1^{\text {st }}$ quartile from the following :

X: 8, 10, 15, 7, 6, 14, 18
9. Find the value of coefficient of correlation from the following data :

| $X: 50$ | 40 | 30 | 20 | 10 |
| :--- | :--- | :--- | :--- | :--- |
| $\mathbf{Y}:$ | 10 | 20 | 30 | 40 |
| 50 |  |  |  |  |

10. Find the value of mean if Median $=8$ and Mode $=10$.

## SECTION - C

Answer any six questions. Each question carries 3 marks.
11. Explain the features of a good measure of central tendency.
12. State the merits of Harmonic mean.
13. Distinguish between Mean Deviation and Standard Deviation.
14. What is Lepto Kurtic Curve ?
15. The Arithmetic mean of 25 observation was found to be 40 . Later on it was discovered that a value was taken 25 instead of 52 . Find the correct mean.
16. From the following obtain regression equation line of Advertisement expense on sales.

| Sales (in 000): | 91 | 53 | 45 | 76 | 89 | 95 | 80 | 65 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Advertisement expenses : 15 | 8 | 7 | 12 | 17 | 25 | 20 | 13 |  |

Estimate the advertisement expenses for a sale of Rs. 1,20,000.
17. Find the coefficient of quartile deviation from the following data.

| Marks in statistics <br> above mark : | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| No. of Students : | 150 | 140 | 100 | 80 | 80 | 70 | 30 | 14 | 0 |

18. Calculate mode from the following :

| Marks: | $0-10$ | $10-20$ | $20-25$ | $25-30$ | $30-40$ | $40-50$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Frequency : | 8 | 12 | 5 | 9 | 12 | 10 |

## SECTIONTV-D

Answer any two questions. Each question carries 8 marks.
19. Define statistics as a data. Explain its features.
20. Find Harmonic Mean from the following :
Class
f.
5-10
2
10-15
9
15-20 29
20-25 54
25-30 11
30-35 5
21. Calculate trend by four-year moving average of the data given below :

| Year | Production |
| :---: | :---: |
| 2001 | 614 |
| 2002 | 615 |
| 2003 | 652 |
| 2004 | 678 |
| 2005 | 681 |
| 2006 | 655 |
| 2007 | 717 |
| 2008 | 719 |
| 2009 | 708 |
| 2010 | 779 |
| 2011 | 757 |

( $2 \times 8=16$ )

