# DR. MPS MEMORIAL COLLEGE OF BUSINESS STUDIES, SIKANDRA, AGRA 

## BBA $2^{\text {nd }}$ Semester Question Bank <br> Subject: Business Statistics

## Unit 1

1. Explain the classification and tabulation of statistical data.
2. Explain the role of statistical technique in business.
3. What do you understand by diagrammatic representation of data?
4. What is frequency distribution? Draw the histogram, frequency polygon and free hand curve for following distribution:

| $10-20$ | $20-30$ | $30-40$ | $40-50$ | $50-60$ | $60-70$ | $70-80$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 12 | 30 | 35 | 65 | 45 | 25 | 18 |

5.Draw the frequency curve and ogive of the following data:

| X | $0-5$ | $5-10$ | $10-15$ | $15-20$ | $20-25$ | $25-30$ | $30-35$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathrm{~F}(\mathrm{x})$ | 7 | 11 | 19 | 31 | 22 | 17 | 6 |

## Unit 2

1. Caculate the median for the following data

| Marks <br> obtained | $0-10$ | $10-20$ | $20-30$ | $30-40$ | $40-50$ | $50-60$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| No. of <br> tudents | 12 | 18 | 27 | 20 | 17 | 6 |

2. What are the measures of dispersion?
3. Calculate the mean deviation:

| Class <br> Interval | $0-5$ | $5-10$ | $10-15$ | $15-20$ | $20-25$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Frequency | 3 | 9 | 4 | 5 | 10 |

4. Find the mean for the following data:

| Class <br> Interval | $0-10$ | $10-20$ | $20-30$ | $30-40$ | $40-50$ | $50-60$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| frequency | 5 | 3 | 2 | 9 | 8 | 3 |

5. find the mean, standard deviation, coefficient of skewness and kurtosis for the following frequency distribution:

| C.I | $0-10$ | $10-20$ | $20-30$ | $30-40$ | $40-50$ | $50-60$ | $60-70$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| frequenc <br> y | 10 | 15 | 25 | 25 | 10 | 10 | 5 |

6. Find out the coefficient of skewness and kurtosis for the following:

| C.I | $0-10$ | $10-20$ | $20-30$ | $30-40$ | $40-50$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| frequency | 1 | 3 | 4 | 2 | 3 |

## Unit 3

1. What is regression?
2. Define the following with suitable example :
3. Regression lines
4. Regression equation
5. Regression coefficient
3.Find out the spearsmen rank correlation

| X | 18 | 15 | 28 | 20 | 22 | 25 | 17 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| y | 12 | 22 | 18 | 15 | 15 | 12 | 26 |

4.Caculate the karl Person's coefficient of correlation and find the lines of regression for the data given below:

| X | 78 | 36 | 98 | 25 | 75 | 82 | 92 | 62 | 65 | 39 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| y | 84 | 51 | 91 | 69 | 68 | 62 | 86 | 58 | 35 | 49 |

4.Define correlation. Explain various types of correlation with suitable examples.

## Unit 4

1.Write short notes of following:
a) Addition law of probability
b) Conditional probability
c) simple and compound events.
d). Multiplication law of probability
e) Mutually exclusive events and complementary events.
f) Bays theorem
2. fit a trend line for the data given below:

| X | 1 | 2 | 3 | 4 |
| :--- | :--- | :--- | :--- | :--- |
| y | -1.51 | .99 | 3.88 | 7.66 |

3. A problem in statistics is given to three students A,B,C .Whose chances of solving it are $1 / 5,1 / 6$ and $11 / 4$ respectively. Find the probability that the problem will be solved.

## Short Questions

1. What do you mean by frequency distribution
2. Define histogram with suitable example
3. Explain classification of data
4. What do you mean by central tendency
5. What is skewness
6. Define harmonic mean
7. What do you understand by regression coefficient?
8. What is probability?
9. What are the coefficient of skewness and kurtosis for binomial distribution?
10. Give the statement of Bay's theorem.
11. Define ogive curve.
12. What do you mean by regression?
13. What are the types of diagram?
14. What do you mean by time series?
15. What do you mean by geometric mean?
