

**BBA-05**

June - Examination 2017

**BBA Pt. I Examination****Fundamentals of Business Statistics****Paper - BBA-05****Time : 3 Hours ]****[ Max. Marks :- 80**

**Note:** The question paper is divided into three sections A, B and C. Write answers as per given instructions.

**Section - A****8 × 2 = 16**

(Very Short Answer Type Questions)

**Note:** Answer **all** questions. As per the nature of the question you delimit your answer in one sentence or upto 30 words. Each question carries 2 marks.

- 1) (i) What do you mean by 'Primary Data' ?
- (ii) Explain continuous series with example.
- (iii) What is skewness ?
- (iv) Find range and its coefficient from the following data :-

|          |    |    |    |    |    |
|----------|----|----|----|----|----|
| Roll No. | 1  | 2  | 3  | 4  | 5  |
| Marks    | 30 | 16 | 46 | 57 | 66 |

- (v) Distinguish between moments and kurtosis.

- (vi) What do you mean by 'Diagrammatic representation of figures' ?
- (vii) What are the components of Time series ?
- (viii) If a card is drawn from a pack of 52 playing cards. What is the probability that drawn card is either a Jack or a queen ?

### Section - B

4 × 8 = 32

(Short Answer Type Questions)

**Note:** Answer **any four** questions. Each answer should not exceed 200 words. Each question carries 8 marks.

- 2) What do you understand by 'Secondary Data'? Mention the various sources of secondary data. What precautions must be taken while using them.
- 3) Write explanatory notes on following :-
- Geographical classification
  - Chronological classification
  - Qualitative classification
  - Quantitative classification
- 4) From the following data, calculate mean and median :-

| Wages in (Rs.) | No. of workers |
|----------------|----------------|
| 0 - 20         | 5              |
| 20 - 40        | 7              |
| 40 - 60        | 22             |
| 60 - 80        | 4              |
| 80 - 100       | 8              |
| 100 - 120      | 14             |
| 120 - 140      | 5              |

- 5) Write short notes on following :-  
 (a) Binomial Expansion Method  
 (b) Yule's coefficient of Association of Attributes.
- 6) From the data given below, calculate weighted Index Numbers by the Aggregative Expenditure method.

| Articles | Price in base year (P <sub>0</sub> ) | Price in Current year (P <sub>1</sub> ) | Expenditure Base year (P <sub>0</sub> q <sub>0</sub> ) |
|----------|--------------------------------------|---|--|
| A        | 20                                   | 25                                      | 50   |
| B        | 40                                   | 60                                      | 240  |
| C        | 50                                   | 70                                      | 420  |
| D        | 30                                   | 45                                      | 200  |

- 7) Define regression. Why are there two regression lines ? Under what conditions can there be only one regression line.
- 8) Explain the importance of 'Graphic Presentation of Data : Discuss how would you construct an Ogive curve.
- 9) Explain Addition and Multiplication Theorem of Probability.

### Section - C

2 × 16 = 32

(Long Answer Type Questions)

**Note:** Answer **any two** questions. Each question should not exceed 500 words. Each question carries 16 marks.

- 10) (a) Calculate standard Deviation and its coefficient from the following data :-

| Marks   | No. of students |
|---------|-----------------|
| 0 - 9   | 12              |
| 10 - 19 | 15              |
| 20 - 29 | 40              |
| 30 - 39 | 22              |
| 40 - 49 | 11              |

- (b) Explain the difference between dispersion and skewness.
- 11) What are the components of a Time series ? How would you find out the trend values in a time series by the method of Least square.
- 12) Calculate coefficient of correlation between Age and playing habit from the following data :-

| Age | No. of Students | Regular Players |
|-----|-----------------|-----------------|
| 15  | 250             | 200             |
| 16  | 200             | 150             |
| 17  | 150             | 90              |
| 18  | 120             | 48              |
| 19  | 100             | 30              |
| 20  | 80              | 12              |

- 13) Write Explanatory notes on following :-
- Fisher's Index Number
  - Mode
  - Regression coefficients
  - Lagrange's method