## BBA-05

## December - 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
$8 \times 2=16$
(Very Short Answer Questions)
Note: Answer all questions. As per the nature of the question delimit your answer in one word, one sentence or maximum upto 30 words. Each question carries 2 marks.

1) (i) What is a Questionnarie?
(ii) How are frequencies made cumulative? Explain with example.
(iii) Obtain the value of median from the following data:

| Marks (out of 100) |
| :---: |
| 80 |
| 78 |
| 90 |
| 45 |
| 36 |
| 65 |
| 70 |
| 20 |
| 55 |

(iv) Explainthe difference between 'Dispersion and Skewness’.
(v) What do you mean by 'Graphic Representation of Data'?
(vi) Explain the objects of the calculation of moments. (Any two)
(vii) From the following data calculate the chain Indices.

| Years | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Price (in Rs.) | 75 | 50 | 60 | 60 | 75 | 70 |

(viii) What is 'Rank correlation'.
(Short Answer Questions)
Note: Answer any four questions. Each answer should not exceed 200 words. Each question carries 8 marks.
2) "Statistics may be defined as the collection, presentation, analysis and interpretation of Number Data". Explain.
3) Distinguish between :-
(i) Continuous and Discrete series.
(ii) Inclusive and Exclusive series.
(iii) More than and Less than frequency tables.
(iv) Simple table and Complex table.
4) What is meant by 'Dispersion’. Explain mean deviation method with an example.
5) Two Judges rank seven candidates in a beauty contest as follows:-

| Contestant | A | B | C | D | E | F | G |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Judge - I | 2 | 1 | 4 | 5 | 3 | 7 | 6 |
| Judge - II | 3 | 4 | 2 | 5 | 1 | 6 | 7 |

Find out Rank coefficient of correlation.
6) Write short notes on following:-
(i) Regression coefficients.
(ii) Langrange's method of Interpolation.
7) Construct the Fisher's Ideal Index from the following data :-

|  | Base years |  | Current year |  |
| :---: | :---: | :---: | :---: | :---: |
| Articles | Price | Quantity | Price | Quantity |
| A | 5 | 25 | 6 | 30 |
| B | 10 | 5 | 15 | 4 |
| C | 3 | 40 | 2 | 50 |
| D | 6 | 30 | 8 | 35 |

8) Explain the importance of Graphic Presentation of statistics. Discuss how would you construct an ogive curve.
9) What is time series Analysis? Explain the various methods of estimating the secular trend of time series.

## Section - C

$2 \times 16=32$
(Long Answer Questions)
Note: Answer any two questions. You have to delimit your each answer maximum upto 500 words. Each question carries 16 marks.
10) Calculate mean, median and mode from the following data:

| Classes | Frequency |
| ---: | :---: |
| $0-10$ | 15 |
| $10-20$ | 20 |
| $20-30$ | 25 |
| $30-40$ | 24 |
| $40-50$ | 12 |
| $50-60$ | 31 |
| $60-70$ | 71 |
| $70-80$ | 52 |

11) Write explanatory notes on following :-
(i) Standard Deviation.
(ii) Karl Pearson's coefficient of correlation.
12) (i) What is the probability of drawing a card of spade or a king from a pack of playing cards?
(ii) What is the probability of getting a total of 2 or 8 or 12 on throwing a part of Dice?
(iii) In a randomly selected leap year, what is the probability that there are 53 Sundays?
(iv) A bag contains 8 white, 6 black, 3 green and 3 yellow balls. What is the probability of drawing a black or a green or a yellow ball in a test?
13) (i) Explain Yule's coefficient of Association of Attributes in brief.
(ii) Describe briefly the various methods of calculating moments.
