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III Semester B-B.A. Degree Examination, March/April - 2023

**BUSINESS ADMINISTRATION****Business Data Analysis***(CBCS Semester Scheme Repeaters 2019-20)***Paper : 3.6****Time : 3 Hours****Maximum Marks : 70****Instructions to Candidates:**

Answers should be written completely in English only.

**SECTION - A**

Answer any Five of the following sub-questions. Each sub question carries 2 marks.  
(5×2=10)

1. a) Give the meaning of statistics.
- b) What is standard deviation?
- c) If  $\bar{X} = 12$ ,  $Z = 13$ , Find median,.
- d) What is probable error?
- e) Find the correlation coefficient if two regression coefficients are 0.8 and 0.4.
- f) Give the meaning of the term 'Probability'.
- g) What do you mean by 'Hypothesis' testing?

**SECTION - B**

Answer any Three of the following questions. Each question carries 5 marks.(3×5=15)

2. The following table shows the result of BBA students of a university for last three years. Represent the data in Multiple Bar Diagram.

| Year | I class | II class | III class | Failed |
|------|---------|----------|-----------|--------|
| 2019 | 60      | 160      | 260       | 163    |
| 2020 | 70      | 210      | 310       | 150    |
| 2021 | 60      | 260      | 360       | 160    |

**[P.T.O.]**



3. From the following information:
- Estimate the value of Y when  $X = 50$
  - Estimate the value of X when  $Y = 80$

| Variables | Mean | S.D  |
|-----------|------|------|
| X         | 130  | 5    |
| Y         | 134  | 4.95 |

$$r = 0.8$$

4. A sample of 400 boys was found to have a mean height of 67.47". Can it reasonably be regarded as a sample from the large population with in the mean height 67.39" and S.D is 1.30" (test at 5% significance level i.e 1.96).
5. Explain any five Probability sampling techniques.

### SECTION - C

Answer any Three questions. Each question carries 15 marks.

(3×15=45)

6. Calculate Mean and Median from the following.

| Class Interval | Frequency |
|----------------|-----------|
| 10-20          | 24        |
| 20-30          | 30        |
| 30-40          | 40        |
| 40-50          | 50        |
| 50-60          | 40        |
| 60-70          | 20        |
| 70-80          | 20        |
| 80-90          | 06        |

7. Find which of the Batsman is better run getter and who is more consistent?

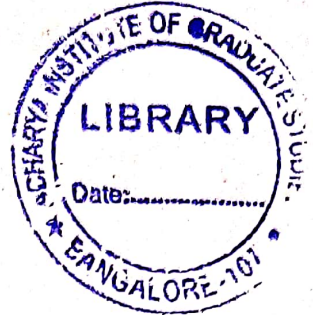
| Batsman 'A' | Batsman 'B' |
|-------------|-------------|
| 101         | 97          |
| 22          | 12          |
| 0           | 40          |
| 36          | 96          |
| 82          | 13          |
| 45          | 8           |
| 7           | 85          |
| 3           | 8           |
| 65          | 56          |
| 14          | 16          |





8. Find the Pearson's Coefficient of correlation between X and Y.

| X   | Y  |
|-----|----|
| 200 | 10 |
| 500 | 16 |
| 400 | 14 |
| 700 | 20 |
| 600 | 17 |
| 300 | 13 |



9. From the following information:-

- Write two regression equations.
- Estimate the value of Y when X is 46,
- Estimate the value of X when Y is 74
- Find Correlation Coefficient.

| X  | Y  |
|----|----|
| 40 | 20 |
| 48 | 24 |
| 52 | 28 |
| 68 | 36 |
| 72 | 52 |

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**Business Data Analysis**

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Maximum Marks : 70

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[P.T.O.]



(2)



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