



II Semester B.B.A. Examination, June/July 2025  
(SEP)  
**BUSINESS ADMINISTRATION**  
**BBA 2.4 : Data Analysis for Business Decisions**

Time : 3 Hours

Max. Marks : 80

**Instruction :** Answers should be written in English only.

**SECTION – A**

Answer any seven questions from the following.

(7x2=14)

1. a) Define statistics.
- b) Give the meaning of classification.
- c) List out uses of correlation.
- d) Mention the merits of arithmetic mean.
- e) What is time series ?
- f) Define Event.
- g)  $M = 79.5 \bar{X} = ? Z = 78.1$ .
- h) If  $r = 0.60$  and  $N = 64$  of a distribution, Find out the probable error.
- i) What is conditional probability ?
- j) What is irregular variations ?

**SECTION – B**

Answer any three from the following.

(3x8=24)

2. In the year 2021, there were 400 Banks. Out of which 100 were private banks. In these 100 Banks, 20 had ATM facility and none of the Nationalised Banks had this facility. In the year 2024 there was an increase of 100 banks in the private sector and total number of banks was 525 and 40 Nationalised banks had ATM facility and 150 private sector banks had this facility. Tabulate the above details.

P.T.O.



### 3. Calculate Arithmetic mean.

Income ('000 ₹)	Number of Families
More than 0	100
More than 10.	95
More than 20	82
More than 30	60
More than 40	45
More than 50	36
More than 60	20
More than 70	10

4. The following information shows the respective I. Q. of father and sons. Calculate Rank correlation co-efficient and comment.

**Father I.Q.** = 91, 97, 102, 103, 103, 105, 110, 114, 116, 124

Son's I.Q. = 102, 94, 105, 115, 113, 99, 98, 112, 120, 108

5. Calculate 4 yearly moving averages of the population figure given below.

**Year** = 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022

**Sales in '000 units** = 45, 58, 61, 59, 58, 54, 50, 40, 52, 65, 75, 82, 90

## SECTION – C

**Answer any three from the following.**

$$(3 \times 14 = 42)$$

7. Calculate the co-efficient of correlation and probable error and comment on the results.

**x** = 3750, 7500, 2500, 1250, 6250, 8750

**y** = 5000, 7000, 9000, 5000, 8000, 8000



8. From the data given below, Find

- The two regression co-efficient
- The two regression equations
- The co-efficient of correlation between the marks in statistics and mathematics
- The most likely marks in mathematics when marks in statistics are 30.

Marks in Statistics = 25, 28, 35, 32, 31, 36, 29, 38, 34, 32

Marks in Mathematics = 43, 46, 49, 41, 36, 32, 31, 30, 33, 39

9. Two brands of tyres are tested for their life and the following results were obtained.

**Life (months)** = 20 – 25, 25 – 30, 30 – 35, 35 – 40, 40 – 45

**Tyre X** = 1 22 64 10 3

**Tyre Y** = 3 21 74 1 1

If consistency is the criterion which brand of tyres would you prefer ?

10. Fit a straight line trend under least square method to the following data and plot the trend values on a graph. Estimate the production for the year 2025.

**Year** = 2015, 2016, 2017, 2018, 2019, 2020, 2021

**Production (in Million tonnes)** = 30, 48, 40, 78, 84, 80, 88

11. Draw the two ogives from the following data and locate median.

**x** = 100 – 200, 200 – 300, 300 – 400, 400 – 500, 500 – 600, 600 – 700

**f** = 20 60 80 120 80 60