

Progressive Education Society's
Modern College of Arts, Science & Commerce (Autonomous),
Ganeshkhind, Pune – 411016.
End Semester Examination : April 2025

Total No. of Questions : 4

Total No. of Pages: 3

F.Y.B.Com. : (Semester II)
24COB12103A : Business Statistics

Program : B.Com.

Program Specific : B.Com.

SET: A

Credits : 4

Time : 2 ½ Hours

Max. Marks : 60

Instructions to the candidate:

- 1) All questions are compulsory.
- 2) Figures to the right indicate full marks.
- 3) Use of Calculator is allowed

Q1. Answer the following Questions

5 x 2 Marks each = 10 Marks

- (a) Define the term Statistics.
- (b) Define the term Sample in Statistics with suitable example.
- (c) Explain inclusive Classification with an example.
- (d) Mean of 25 observations is 10 and Standard Deviation is 3. If each observation is increased by 5, what will be the new mean and new Standard Deviation?
- (e) Explain Negative Correlation with an example.

Q2. Solve ANY FOUR of the following

4 x 5 Marks each = 20 Marks

- (a) Calculate median for the following data
18, 20, 19, 15, 16, 17.
- (b) With reference to the table answer the questions given below...

Marks	Below 20	20-40	40-60	60-80	80-100
No. of Students	5	10	15	10	5

- i. State class limits of the fourth class
- ii. State the type of classification
- iii. How many students have got marks less than 40?
- iv. State Class mark of second class
- v. Identify the open-ended class.

(c) Explain the concept of Sample in statistics. State advantages of sampling.

(d) Calculate Arithmetic Mean for the following data...

24, 22, 28, 29, 27, 24, 25.

(e) Calculate Mode for the following data...

Marks	0-10	10-20	20-30	30-40	40-50
No. of Students	5	15	20	15	5

(f) Calculate Range and Coefficient of Range for the following data...

54, 52, 58, 59, 57, 54, 55.

Q3. Solve ANY FOUR of the following

4 x 5 Marks each = 20 Marks

(a) Explain various types of correlation with suitable diagrams.

(b) Calculate Mean for the following data.

Age in years	20-30	30-40	40-50	50-60	60-70
No. of persons	7	13	20	11	7

(c) Calculate Rank Correlation Coefficient for the following data...

Rank by Judge A	3	4	1	2	5
Rank by Judge B	2	5	1	3	4

(d) Calculate Median for the following data...

No. of Vehicles	0	1	2	3	4
No. of families	7	13	15	13	7

(e) Calculate Standard Deviation for the following data...

10, 7, 13, 6, 14, 10, 8

(f) Describe SRSWR and SRSWOR

Q4. Solve ANY ONE of the following

1 x 10 Marks each = 10 Marks

(a) From the following information compute Karl Pearson's Coefficient of Correlation.

Income (Rs. In Lakhs)	12	14	17	18	20	22	24	26
Expenses (Rs. In Lakhs)	7	9	11	12	14	16	17	19

(b) Calculate Mean and Standard Deviation for the following data...

Marks	0-20	20-40	40-60	60-80	80-100
No. of Students	7	13	20	13	7
