

Enroll No

K.E.Society's
Rajarambapu Institute of Technology, Rajaramnagar
 (An Empowered Autonomous Institute, Affiliated to SUK)
 End Semester Examination 2025-26-I (Jan.2026)
 F.Y.-B.B.A. SEM-I

Q.P.Code
E 1525

Course Code: BBA107

Course Name: Business Statistics and Logic

Day & Date : Friday, 16.1.2026

Time : 2.15 pm to 5.15 pm

Max Marks: 100

- Instructions:**
- 1) All questions are compulsory.
 - 2) Figures in rounded () brackets within the question, indicate the scheme of marking for respective part of the question, whereas, figures in the first right column indicate total marks for that whole question.
 - 3) CO is the index number of the Course Outcome statement.
 - 4) The Bloom's taxonomy level (BL) for 1,2,3,4,5 and 6 is remember, understand, apply, analyse, evaluate and create respectively.
 - 5) Assume suitable data if necessary.
 - 6) Use of non-programmable calculators is allowed.

Q.1

- | | Marks | COs | BT
Level |
|--|-------|-----|-------------|
| (a) Calculate Mean and Median for the following Data | 08 | 01 | 03 |
- | | | | | | |
|-----------------|------|-------|-------|-------|-------|
| Marks | 0-10 | 10-20 | 20-30 | 30-40 | 40-50 |
| No. of Students | 6 | 15 | 25 | 20 | 4 |
- | | | | |
|---|----|----|----|
| (b) Define Graphical Representation. Explain different types of graphical representation. | 07 | 01 | 02 |
|---|----|----|----|

OR

- | | | | |
|--|----|----|----|
| (b) Explain Statistics concept. Differentiate between primary data and secondary data. | 07 | 01 | 02 |
|--|----|----|----|

Q.2

- | | | | |
|---|----|----|----|
| (a) Calculate Q.D. and its Coefficient for the following data | 08 | 02 | 03 |
|---|----|----|----|
- | | | | | | | | | | |
|---|----|----|----|----|----|----|----|----|----|
| X | 60 | 62 | 68 | 70 | 75 | 80 | 88 | 90 | 97 |
| F | 25 | 21 | 28 | 18 | 24 | 20 | 24 | 17 | 22 |
- | | | | |
|--|----|----|----|
| (b) Compute Standard Deviation and Coefficient of Variance of the following data | 07 | 02 | 03 |
|--|----|----|----|

Class Int.	20-30	30-40	40-50	50-60	60-70
Frequency	6	10	18	9	7

OR



- (b) Calculate range and coefficient of range for following data 07 02 01

Class Int.	2-8	12-18	22-28	32-38	42-48
Frequency	12	21	25	19	13

Q.3

- (a) Calculate Karl Pearson's Coefficient of Skewness or Measure of Skewness 08 03 02

15,5,4,4,4,3,6,2,6,12

- (b) Describe concept Kurtosis. Write down types of Kurtosis with its importance. 07 03 02

OR

- (b) Describe meaning of Skewness in Statistics. Explain different types of Skewness. 07 03 02

Q.4

- (a) Define Correlation. Explain different types of Correlation. 08 04 01

- (b) Calculate Karl Pearson Correlation coefficient for following data 07 04 03

X	25	28	35	32	31	36	29	38	34	32
Y	43	46	49	41	36	32	31	33	33	39

OR

- (b) Calculate Spearman's rank correlation coefficient. 07 04 03

X	20	50	28	25	70	90	76	45	30	19	26
Y	30	60	50	40	85	90	56	82	42	31	49

Q.5

- (a) If $P(A) = 0.8$, $P(B) = 0.5$ and $P(B/A) = 0.4$ Find probability of 06 05 03

- i) $P(A \cap B)$ ii) $P(A \cup B)$ iii) $P(A/B)$
iv) $P(A' \cup B')$ v) $P(A \cup B)'$ vi) $P(A' \cap B')$

OR

- (a) A card is drawn from a pack. What is probability that it will be: 06 05 04
i) A King card
ii) A club or red
iii) A number card
iv) A queen or jack
v) A club or a picture

- (b) In a large consignment of electric bulbs 10% bulbs are defective. Sample of 20 is taken for inspection. Find probability that, 07 05 04
i) None will defective ii) 1 defective
iii) 2 defective iv) 3 defective



- (c) In a sample of 500 students the mean and SD of marks obtained by students in certain test are 120 and 40 Assuming data is normally distributed. Find the number of students getting marks,
i) between 100 and 150 ii) above 150 iii) below 90

(Given S.N.V.z. $A(0.75) = 0.2734$ $A(0.5) = 0.1915$
 $A(1.5) = 0.4332$)

Q.6

- (a) Write down the first eight terms of the geometric progression with first term 5 and common ratio 4. 06 06 04
- (b) 8 persons A, B, C, D, E, F, G, and H are sitting in two rows opposite to each other. Each row has 4 people. B and C are sitting in front of each other. C is between D and E. H is sitting to the immediate left of E. H and F are diagonally opposite. G and B are not near to each other. Who is in front of A? 07 06 04

OR

- (b) Ravi is a son of Aman's father's sister. Sahil is the son of Divya who is the mother of Gaurav and grandmother of Aman. Ashok is the father of Tanya and grandfather of Ravi. Divya is the wife of Ashok. How is Ravi related to Divya? 07 06 04
- (c) If "LESD" is written as "@ \$ & # " and "NAC" is written as "% ? * " then how CANDLES, SELL and ACLESD is coded in the same way? Elaborate answer in detail.. 07 06 04

