



Institute of Management
JK LakshmiPat University
Jaipur

END TERM EXAMINATION, 2013



BBA– Sem. I
MM: 50 Marks

Course: Introduction to Statistics
Time: 3 Hours
Subject code: BBA 013

Instructions: Attempt any three questions from Section A. Section B is compulsory.

Section A

Q1. A) Define Statistics. What is Difference between Histogram and Bar Graph?

B) Cities A, B and C are equidistant from each other. A motorist travels from A to B at 30 Km/hr., from B to C at 40 Km/hr. and from C to A at 50 Km/hr. Determine his average speed for the entire trip.

(10 marks)

Q2. A computer company received a rush order for as many home computers as could be shipped during a six week period. Company records provide the following daily shipments:

22	65	65	67	55	50	65
77	73	30	62	54	48	65
79	60	63	45	51	68	79
83	33	41	49	28	55	61
65	75	55	75	39	87	45
50	66	65	59	25	35	53

Group these daily shipments figures into a frequency distribution having the suitable number of classes.

(10 marks)

Q3. A) Calculate the mean deviation from median from the numbers: 1, 2, 3, 4, 5.

B) Mr. Basu wants to invest Rs. 10000 in one of the two companies A or B. Average return in a year from company A is Rs 4000 with a standard deviation of Rs 25, while in company B the average return in a year is Rs 5000 with a standard deviation of Rs 40.

Calculate coefficient of variation of each. Which company will you recommend to Mr. Basu for investment? Justify your answer.

(10 marks)

Q4. In a frequency distribution, the coefficient of skewness based on quartiles is 0.5. If the sum of the upper and lower quartiles is 28 and the median is 11, find the values of the upper and the lower quartiles.

(10 marks)

Q5. Define the following:

- A) Parameter and Statistic
- B) Sampling Methods
- C) Null Hypothesis
- D) Population and Sample

(10 marks)

Section B

Q6. A) Calculate the Karl Pearson's coefficient of correlation from the following data:

No	Subject	Percentage First Term	Marks	Percentage Second Term	Marks
1	Hindi	75		62	
2	English	81		68	
3	Economics	70		65	
4	Accounts	76		60	
5	Commerce	77		69	
6	Mathematics	81		72	
7	Statistics	84		76	
8	Costing	75		72	

(10 Marks)

B) The following data are given regarding expenditure on advertising and sales of a particular firm:

	Advertisement Expenditure (X)	Sales(Y)
MEAN	10	90
S.D.	3	12

Correlation Coefficient $r_{xy} = 0.8$

- a) Calculate the regression equation of Y on X
- b) Estimate the advertisement expenditure required to attain a sales target of Rs. 120 lakhs.

(10 Marks)