January 2015

Bechelor of Business Administration (BBA) Examination

III Semester

Business Statistics

Time : 3 Hours] [Max. Marks : 80

Note : Attempt any four questions from Section A. Each question carries 16 marks. Section B is compulsory and carries 16 marks.

Section A

Q. 1. (a) What do you mean by the term Statistics ? Discuss the limitation of Statistics.

(b) What are the various types of frequency distributions ? What are the general rules to frame a frequency distribution ?

Q. 2. (a) Define terms mean, median and mode. Discuss the relationship between mean, median and mode.

(b) In a moderately asymmetrical distribution the mode and mean are 32.1 and 35.4 respectively. Calculate the median.

Q. 3. In a bolt factory machines A, B, C manufacture respectively 25%, 35% and 40% of the total production of their output 5%, 4% and 2% respectively are defective bolts. A bolt is drawn at random and is found to be defective. What is the probability that it is manufactured by machine B ?

Q. 4. Suppose that samples of polythene bags from two manufacturer A and B. are tested by a prospective buyer for bursting pressure, with the following results :

Bursting Pressure (in lbs)	No. of Bags	
	A	B
5.0-9.9	2	9
10.0-14.9	9	11
15.0-19.9	29	18
20.0-24.9	54	32
25.0-29.9	11	27
30.0-34.0	5	13
	110	110

Which sets of bags has the higher average bursting pressure ? Which has more uniform pressure? If prices are the same, which manufacturer's bags would be preferred by the buyer ? Why ?

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Q. 5. Suppose that ten salesmen employed by a company were given a month's training. At the end of the specified training they took a test and were ranked on the basis of their performance. They were then posted to their respective areas. At the end of six months they were rated in respect of their sales performance. The data are given below :

Salomon :	1	2	3	4	5	6	7	8	9	10
Ranks obtained in training :	4	6	1	3	9	7	10	2	8	5
Rank on the basis of sales performance :	5	8	3	1	7	6	9	2	10	4

Compute the coefficient of rank correlation.

Q. 6. Following table shows the data of Reserve Bank of India :

Year	Streling Assets (crores of Rs.)
1993-1994	83
1994-1995	92
1995-1996	71
1996-1997	90
1097-1998	169

Show the computation for fitting a straight line of trend by the method of least square for above data.

Section B

Q. 7. Compute the average seasonal movement for the following series :

Year	Quarterly Production			
	I	II	III	IV
1994	3.5	3.9	3.4	3.6
1995	3.5	4.1	3.7	4.0
1996	3.5	3.9	3.7	4.2
1997	4.0	4.6	3.8	4.5
1998	4.1	4.4	4.2	4.5

□□□

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