BB 12

I Semester B.B.M. Examination, June/July 2010
BUSINESS STATISTICS

Time : 3 Hours Max. Marks: 80

SECTION – A

Answer **any five** sub questions. **Each** question carries **two** marks. **(2×5=10)**

1. a) What is hypothesis testing ?

   b) What is forecasting ?

   c) What is probability ?

   d) What is a measure of central tendency ?

   e) What is secondary data ?

   f) What are random numbers ?

SECTION – B

Answer **any four** questions. **Each** question carries **five** marks : **(4×5=20)**

2. Find the mode and median for the following data :
   27, 18, 17, 11, 24, 32

3. Explain the main steps involved in performing a regression analysis.

4. Discuss the illustrate the central limit theorem.

5. Range restriction reduces correlation – elaborate.

6. The mean and standard deviation of a random sample of 100 is 120 and 190. Construct a 98% CI for the true mean content.

P.T.O.

SECTION – C

Answer **any five** questions. **Each** question carries **ten** marks. **(10×5=50)**

7. Define primary data. What are the various sources of primary data ?

8. What is central tendency ? Discuss the various parameters that are used to measure central tendency with example.

9. Following is the information about advertisement and sales :

	Adv. exps. (Rs. in Crores)	**Sales (Rs. in Crores)**
Mean	60	360
S.D.	15	75

Correlation coefficient is 8.25.

1) Calculate the regression equations.

2) Find the :
   a) Likely sales for advertisement expenditure of Rs. 55 crores.
   b) Likely advertisement expenditure for sales of Rs. 490 crores.

10. The following data relates to the purchase of two cars from manufacturers P and Q :

Manufacturers	**No. of Cars**	**Mean life (in lakh Rs.)**	**S.D.**
P	250	550	90
Q	250	540	85

Is there a significant difference in the mean life of the two cars ?

11. A manufacturer of wool has determined by experience that the breaking strength of wool manufactured by him is normally distributed with a mean of 24 and a SD of 18. What is the probability that

    a) a sample of 52 yields a mean of 25 and more ?

    b) a sample of 64 yields a mean of 28 and more ?

12. What is statistics ? Discuss its relevance in business and government currently.

13. Discuss and explain Bayes' formula with suitable examples.

14. What is sampling ? Explain the various types of sampling methods with suitable examples.

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