Roll No. ☐☐☐☐☐☐☐☐☐☐☐☐   Total No. of Pages : 03

Total No. of Questions : 15

MBA/MBA(IB) (Sem.–1ˢᵗ)

QUANTITATIVE TECHNIQUES

Subject Code : MBA-104 (Batch-2012)

Paper ID : [C0104]

Time : 3 Hrs.   Max. Marks : 60

INSTRUCTION TO CANDIDATES :

1. SECTION-A contains SIX questions carrying FIVE marks each and students has to attempt any FOUR questions.
2. SECTIONS-B consists of FOUR Subsections : Units-I, II, III & IV. Each Subsection contains TWO questions each carrying EIGHT marks each and student has to attempt any ONE question from each Subsection.
3. SECTION-C is COMPULSORY and consist of ONE Case Study carrying EIGHT marks.

SECTION-A

urtosis by emphasizing on measures of shape of data.

2. Differentiate between sample and population variance and standard deviation.

3. Enumerate the assumptions of Binomial and Poisson distributions. Identify the type of statistical experiments that can be described by binomial and Poisson distribution.

4. Give an example of how quota sampling could be used to conduct sampling by a company test marketing a new personal computer.

5. Explain the need of hypothesis testing and logic of creating null and alternate hypothesis.

6. Interpret slope, intercept and standard error of estimate in a simple regression line.

SECTION - B

UNIT-I

7. Give an example of descriptive statistics in recorded music industry. How inferential statistics can be used in this industry? Compare the two examples. What makes them different?

8. Distinguish between measures of central tendency, measures of variability, measures of shape and measures of association.

UNIT-II

9. Decide when and how to use probability sampling techniques by discussing their statistical and economical efficiency.

10. A researcher conducted survey for three brands of jeans and wants to determine whether sales of jeans is independent of age. The number of responses for each brand in different age category is given in following table. Determine whether brand preference is independent of age group. Use alpha=0.05

	Brand 1	Brand 2	Brand 3
15 to 25	65	75	22
26 to 35	60	40	64
36 to 45	45	52	50
60			

55   65

UNIT-III

11. Develop a regression model to predict the impact of advertisements on sales. Also calculate and interpret standard error of estimate.

Months	Ad expense (Rs. '000)	Sales (Rs. '000)		Ad (Rs. '000)	Sales (Rs. '000)
1.	92	930	7.	104	1,150
2.	94	900	8.	105	1,120
3.	97	1,020	9.	105	1,130
4.	98	990	10.	107	1,200
5.	100	1,100	11.	107	1,250
6.	102	1,050	12.	110	1,220

12. Describe various ways of computing index numbers. Also, explain the application of each type of index numbers.