

January-2007

Subject Code—5882

**M.B.A. EXAMINATION**

(Second Semester)

(Re-appear)

(2 Years New Scheme)

CP-205

**STATISTICAL ANALYSIS**

*Time : 3 Hours*

*Maximum Marks : 100*

**Note :** Attempt any *Five* questions. All questions carry equal marks.

1. Explain the concept of dispersion in statistical analysis. Describe its various measures and discuss their merits and demerits. 20
2. What is a questionnaire ? How does it differ from a Blank Form ? What are essential characteristics of a good questionnaire ? Distinguish between a schedule and a questionnaire. 20

3. Discuss the various criteria for decision-making under conditions of certainty, risk and uncertainty. Illustrate the use of decision trees for decision making. 20
4. Distinguish between process control and product control. State the different types of acceptance sampling plans explaining their merits and demerits. 20
5. Explain the various steps involved in hypothesis testing. How would you test hypothesis using F test ? Give suitable illustrations. 20
6. Explain Poisson distribution and Normal distribution. Point out their role in statistical analysis. 20
7. (a) An investment consultant predicts that the odds against the price of a certain stock will go up during the next week are 2 : 1 and odds in favour of the price remaining the same are 1 : 3. What is the probability that the price of the stock will go down during the next week ?

(b) One bag contains 4 white and 2 black balls. Another contains 3 white and 5 black balls. If one ball is drawn from each bag, find the probability that :

- (i) both are white
- (ii) both are black
- (iii) one is white and one is black.

10.10

8. The equations of two regression lines in a correlation analysis are as follows :

$$3X + 2Y = 26 \text{ and } 6X + Y = 31$$

A student obtains the mean values  $\bar{X} = 7$ ,  $\bar{Y} = 4$ , and the value of correlation coefficient  $r = +0.5$ . Do you agree with him ? If not, suggest your results. 20