13. For the following data, calculate the Laspeyre's and Paache's quantity index numbers.

Items	1994		1995	
	Price per unit	Quantity	Price unit	Quantity
Eggs	2	5	2.0	4
Potatoes	2	3	2.5	3
Bread	8	2	10.5	2

Or

What is Statistical Quality Control ? Explain the causes of variations in quality. What are the types of control chart of variables ?

Subject Code—0275-X

M. B. A. EXAMINATION

(Prior to 2009 Batch Re-appear)

(Second Semester)

STATISTICAL ANALYSIS

CP-205

Time : 3 *Hours* *Maximum Marks :* 100

Section A

Note : Attempt any *Seven* questions. **7×7=49**

1. Define Dispersion. What are the methods of calculating dispersion ?

2. If a random variable follows Poisson distribution such that $P(x = 1) = P(x = 2)$, find the mean and variance of the distribution.

3. Explain the conditional probability.

4. What is sampling distribution of mean ?

5. What are the methods of collecting primary data ?

6. Explain point and internal estimation of population mean.

7. What are the applications of Chi-square test ?

8. Explain the types of Correction.

9. What is an index number ? What are the uses of index number ?

10. What is Acceptance Sampling ?

Section B

Note : Attempt all the questions. **3×17=51**

11. An insurance company insured 2000 scooter drivers, 4000 car drives and 6,000 trucks drivers. The probability of an accident is 0.1, 0.03 and 0.15 in the respective category. One of the insured driver meets an accident. What is the probability that is a scooter driver ?

Or

Explain the probablity and non-probability sampling methods.

12. What are the elements of a decision problem ? Discuss decision-making under uncertainty.

Or

Daily sales figures of 40 shopkeepers showed that their adverage sales and stardand deviation were Rs. 528 and Rs. 600 respectively. Is the assertion that daily sales on the average is Rs. 400, contradicted at 5% level of significance (Take Z = 1.96 at 5% level of significance).