

**SARDAR PATEL UNIVERSITY**  
**THIRD SEMESTER**  
**(EFFECTIVE FROM JUNE, 2011)**  
**SUBJECT: STATISTICS**  
**COURSE CODE: US03ESTA02**  
**(BASIC STATISTICS)**

**Course credit: 2**

**No. of lectures per week: 2**

**All units carry equal Weightage**

**Weightage: Internal – 30%, External – 70%**

**Note: Simple/Scientific calculator is allowed**

**Unit-I Analysis of Quantitative data-I**

- **A.M, G.M, H.M, Median and Mode**
- **Relationship between A.M, G.M and H.M (with proof)**
- **Combined mean, Weighted mean**
- **Examples**

**Unit-II Analysis of Quantitative data-II**

- **Measures of dispersion (variation)**
- **Range, Quartile Deviation (Q.D), Mean Deviation (M.D) , Standard Deviation (S.D)**
- **Combined variance**
- **Skewness**
- **Bowley's coeff. Of skewness**
- **Karl Pearson's coeff. Of skewness**
- **Examples**

**Unit-III Curve Fitting**

- **Fitting of**
  - $Y = a + bX$
  - $Y = a + bX + cX^2$
  - $Y = ab^X$
  - $Y = aX^b$

**Unit-IV Elementary Probability**

- **Random experiment**
- **Sample space**
- **Events**
- **Types of sample space**
- **Meaning and definition of probability (classical & axiomatic)**
- **Laws of probability (without proof)**
- **Conditional probability and independent events**
- **Examples**

**References:**

- 1. Fundamentals of Mathematical statistics by S.C. Gupta & V.K. Kapoor**
- 2. Fundamentals of statistics by S.C. Gupta**
- 3. Basic Statistics by B. L. Agarwal (New Age International publishers)**

