

## **STATISTICAL TESTING AND INTERPRETATION**

**Paper no.- HSG -405**

**ID - 4**

**Credits -4 +0=4**

**Sem. -4 (M.Sc.- C.T.)**

**Marks – 50 +0= 50**

### **OBJECTIVES**

1. To facilitate the students to become familiar and understand r esearch.
2. To enable students to develop the requisite skills for conducting research.

### **UNIT : 1**

- Measures of central tendency – Mean, Arithmetic Mode, Advantages and disadvantages and its application.
- Measures of dispersion – Definition, computations, Ments, Dements, Uses and Properties of different measures of dispersion.
- Range, Mean deviation, Standard deviation, variance, Quartile deviation or Semi inter quartile range, Relative measures of Dispersion, Co - efficient of variance, Standard error, Probable error, Skewness and its measures and kurtosis.

### **UNIT : 2**

- Correlation and Regression – correlation – co – efficient of correlation, Karl pearson method, Coefficient of rank co – relation and product

### **UNIT : 3**

- Testing of hypothesis – steps in the hypothesis, testing – stating the null and alternative hypothesis, selection of sample statistics. selecting the level of

significance. drawing conclusion – Tests for population means using large and small samples. test for comparison hypothesis testing.

#### **UNIT : 4**

- Introduction to designs – CRD, RBD, Factorial designs, Analysis and application in the field of home science.
- Selection of measuring instruments, Characteristics of a standardized test, reliability and validity.
- An introduction to test procedures, Test of significance, chi square ( $x^2$ ), F test and significance, “t” test and Z score.

#### **References :**

- Kapoor, V.K; Business Mathematics, Sultan chand and Suris Delhi.
- Spiegel, M.R; Probability and statistics.
- Elphence, D.N; Fundamentals of statistics.
- Bhardvaj, R.S; Business statistics.
- Kapoor and Sexsens; Fundamentals of statistics.
- Shah, B.S ; ]Cctr Aa>kDaxaS □a pepr – 1.
- Vohra, N.D; Quantitative Teachniques in Management, Tata Mc Graw Hill, New Delhi.
- Chaudhary, C.N; Research Methodology, RBSA Publication, S.M.N. S. Highway, Jaipur, Raj. India.
- Essentials of Agricultural Statistics, E.v. Divalcara Sastry, Pointer Publications, Jaipur, Raj. India.
- A Handbook of Agricultural statistics, Dr. S.R.S. Chandel, Achal Prakashan Mandiv 117/574, Pandunagar, Kanpur – 208005.