

Course Code	Course Title	C	H	I	E	T
<b>7P1KMC4</b>	<b>Research Methods and Statistics</b>	4	5	25	75	100

### **Unit I Introduction of Research**

**18 Hrs**

Meaning – Definition - Classification - Nature and Scope- Significance – Benefits - Types of Research - Methods of Research-Research Process – Identification – Selection - Formulation of a research Problem- Necessary of defining problem. Research Design – Meaning - Features of good research design - Preparation of model research design.

### **Unit II Sampling**

**18 Hrs**

Meaning - Advantages and Limitations – Steps – Types - Sampling and Non-sampling errors. Data Collection - Primary and Secondary – Investigation – Methods - Survey method - Case study method – Observation - Interview schedule – Questionnaire – Pre-testing - Pilot study – Sources of Secondary data. Scaling Technique – Meaning - Basis of Classification- Techniques – Attitude-scaling. Processing, Analysis and Interpretation of data.

### **Unit III Data Analysis**

**18 Hrs**

Correlation and Regression Analysis – Meaning - Multiple & Partial - Hypothesis - Types - Testing of hypothesis - Test of significance for Small (t test) and Large samples – The Chi-Square – Goodness of fit test.F Test and Analysis of variance. (hands on training through SPSS).

### **Unit IV Analysis of Time series**

**18 Hrs**

Components of Time series - Measurement of Trend - Measurement of Personal variations - Seasonal variations - Cyclical variations - Irregular variations (hands on training through SPSS).

### **Unit V Research Report**

**18 Hrs**

Meaning - Significance – Types – Contents – Layout - Precautions in writing a research report - Model Research Report.

### **Text Book**

1. C.R. Kothari & Gaurav Garg, “**Research Methodology Methods and Techniques**”, Third Edition, 2016, New Age International Publishers, New Delhi.

### **Reference Books**

1. S.L. Gupta & Hitesh Gupta, “**Business Research Methods**”, 2015, Tata McGraw Hill Education Pvt. Ltd., New Delhi.
2. Anil Kumar Mishra, “**A hand Book on SPSS for Research Work**”, 2011, Himalaya Publishing House.
3. O.R. Krishnaswami & M. Renganathan, “**Methodology of Research in Social Science**”, Second Edition, 2015, Himalaya Publications, Mumbai.
4. TN. Srivastava & Shailaja Rego, “**Business Research Methodology**”, 2012, McGraw Hill Education Private Ltd., New Delhi.
5. S.P. Gupta, “**Statistical Methods**”, Forty Fourth Edition, 2014, Sultan Chand & Sons, New Delhi.