**SEMESTER – IV\_**

**DISCIPLINE SPECIFIC COURSE (DSC – IV)**

**RESEARCH METHODS FOR MANAGEMENT - THEORY**

**COURSE OUTCOMES:**

CO1: Understand the basic concept and framework of research process.

CO2: Acquiring the knowledge about the sample Design.

CO3: Apply various scaling techniques to build a questionnaire

CO4: Understand and apply the testing of hypothesis

CO5: Applying the report writing skills.

CO6: Understand and apply the various tools.

**Pedagogy:**

Teaching aids used are Black board, Slides, Demonstration, Group Discussion, Field Survey and

Guest Lecture

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| **TOTAL HOURS/SEMESTER –60** | | |
| **CIA** | **CO-CURRICULAR ACTIVITIES** | **LECTURE** |
| **8** | **4** | **48** |

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| **UNIT : I (LECTURE HOURS: 12)** | | | | | | | | | | |
| **TOPIC(S)** | | **SUB TOPIC(S)** | **REFERENCE & PG. NO.** | | **KEY POINT(S)** | | | **MINUTES** | | |
| **Research Methodology: An Introduction** | | Meaning of research | T1 Page No:1 | | Research in common parlance refers to a search for knowledge | | | 60 | | |
| Objectives of research and Types of research | T1 Page No: 2 – 4 | | * Descriptive vs Analytical * Applied vs Fundamental * Quantitative vs Qualitative * Conceptual vs. Empirical * Other types of research | | | 60 | | |
| Research process | T1 Page No: 9-18 | | Define the research problem, review of literature, Formulate Hypothesis, Preparing research design, Data collection, Data Analysis, Interpretation & report writing. | | | 120 | | |
| Criteria of a good research &  Problems faced by researcher | T1 Page No:19 – 21 | | Good research is systematic, logical, empirical, replicable | | | 60 | | |
| **Research Problem** | | Introduction to research problem, Selecting the problem | T1 Page No:22- 24 | | It refers to some difficulty which a researcher experiences. The research problem undertaken for a study must be find with care | | | 60 | | |
| Techniques involved in defining a problem | T1 Page No: 25– 27 | | Statement of the problem in a general way, nature of the problem etc.., | | | 60 | | |
| **Research Design** | | Meaning and Need of Research Design. | T1Page No: 29-30 | | The formidable problem that follows the task of defining the research problem | | | 60 | | |
| Different types of research design | T1Page No: 34– 38 | | * Research Design in case of exploratory research studies. * Research Design in case of Descriptive and Diagnostic Research Studies. * Research Design in case of Hypothesis – Testing Research Studies. | | | 60 | | |
| **Sampling Design** | | Introduction sample design, steps in sample design | T1 Page No: 52– 54 | | Various steps involved in sampling design | | | 60 | | |
| Sampling errors, Types of sampling design | T1 Page No: 55- 64 | | Sampling and Non- sampling errors, Probability and non – probability sampling, etc. | | | 120 | | |
| **UNIT : II (LECTURE HOURS: 11)** | | | | | | | | | | |
| **Measurement** | Measurement in research | | | T1 Page No: 66 | Measurement is s process of mapping aspects of a domain | | | | | 60 |
| Classifications of Measurement scales | | | T1 Page No: 67 -69 | Nominal, ordinal, interval, ratio | | | | | 60 |
| **Scaling** | Introduction to scaling, Scale classification bases | | | T1 Page No: 73 – 75 | Scaling describes the procedures of assigning numbers, subject orientation, etc.., | | | | | 60 |
| Scaling techniques | | | T1 Page No: 76–86 | Comparative & Non- comparative | | | | | 180 |
| **Data Collection** | Introduction to data collection | | | T1 Page No: 89-90 | The task of data collection begins after a research problem and research design | | | | | 60 |
| Collection of primary data | | | T1 Page No: 91- 95 | * Collection through Observation method * Collection through Interview method * Collection of data through Questionnaires. * Collection of data through Schedules. | | | | | 180 |
| Collection of secondary data | | | T1 Page No: 107– 108 | Characteristics, Factors, Case study methods | | | | | 60 |
| **UNIT : III (LECTURE HOURS: 05 )** | | | | | | | | | | |
| **Data preparation** | Data Preparation Process | | | T1 Page No: 114 - 124 | * Questionnaire checking * Editing * Coding * Classification * Tabulation * Graphical representation * Data cleaning * Data adjusting | | | | 120 | |
| **Testing of**  **Hypothesis** | Introduction and characteristics | | | T1 Page No: 179-180 | Hypothesis means mere assumption | | | | 60 | |
| Basic concepts concerning testing of hypothesis | | | T1 Page No: 181 - 185 | Null hypothesis, Type I & Type II error … | | | | 120 | |
| **UNIT : IV (LECTURE HOURS: 15)** | | | | | | | | | | |
| **Chi – Square test** | Meaning of Chi Square | | | T1 – 235 | Chi square distribution is used to obtain confidence interval estimate of unknown population variance. | | | | 60 | |
|  | Test of independence of attributes | | | T1 – 237 - 243 | Concepts and related problems | | | | 60 | |
|  | Test of Difference of more than two proportions | | | T1 – 235 - 237 | Concepts and related problems | | | | 60 | |
| **ANOVA** | Meaning of ANOVA | | | T1 – 261 | The ANOVA technique enables us to perform this simultaneous test as such is considered to be an important tool of analysis. | | | | 60 | |
|  | One way ANOVA | | | T1 -263 - 270 | Concept and Problems | | | | 120 | |
| **Correlation** | Karl pearson’s correlation | | | T1 – 139 - 140 | Concept and Problems | | | | 120 | |
|  | Rank Correlation | | | T1 – 140 - 143 | Concept and Problems | | | | 120 | |
| **t-Test** | t-Test for the slopes | | | T1 – 333 - 334 | Concept and Problems | | | | 120 | |
| **F- Test** | F – Test ANOVA | | | T1 – 334 - 335 | Concept and Problems | | | | 120 | |
| **Factor Analysis** | Meaning and importance | | | T1 – 357 - 359 | Factor analysis is by far the most often used multivariate techniques of research studies. | | | | 60 | |
| **UNIT : V (LECTURE HOURS: 05 )** | | | | | | | | | | |
| **Interpretation** | Meaning and Techniques of interpretation | | | T1 Page No: 416 - 417 | | Interpretation refers to the task of drawing inference.  Reasons for interpretation.  Four Steps involved in Techniques of interpretation;  The researcher must pay attention in five points for correct interpretation | 60 | | | |
| **Report Writing** | Significance and Steps in writing report | | | T1 Page No: 418 -419 | | Research report is considered a major component of the research study, Logical analysis of subject matter, etc.., | 60 | | | |
| Difference steps in Writing Report | | | T1 page No – 419 - 420 | | * Logical analysis of the subject matter * Preparation of the final outline * Preparation of the Rough draft * Rewriting and polishing of the rough draft * Preparation of the final bibliography * Writing of the final draft | 120 | | | |
| Layout of the Research Report | | | T1 – 420 - 422 | | * Preliminary page * Main Text * End Matter | 60 | | | |
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**Text Book**

T1. Research Methodology – Methods and techniques, Third Edition 2016, C.R.Kothari – Gaurav Garg, New Age international publications.

**Reference Books**

R1 – Research Methods for Business: A Skill Building Approach, 7th Edition – Uma Sekaran, wiley publications

**oNLINE REFERENCES:**

1. SWAYAM – Research Methodology – Prof.G.S.Bajpai – National Law University, New Delhi.

2. Certificate Course on Research Methodology – Alexis Foundation – Luck now.