**FIFTH SEMESTER (OPEN COURSE)**

**(For students not having Mathematics as Core Course)**

**MTS5 D04 MATHEMATICS FOR DECISION MAKING**

**3 hours/week 3 credits 75marks [Int:15+Ext:60]**

**Text --**  **Elementary Statistics**: Picturing the World (6/e) Ron Larson & Betsy Farber Pearson Education, Inc (2015) ISBN: 978­0­321­91121­6

**Module** I: (14 hrs) Chapter1 Introduction to Statistics 1.1: An Overview of Statistics 1.2: Data Classification 1.3: Data Collection and Experimental Design Chapter2 Descriptive Statistics 2.1: Frequency Distributions and their Graphs 2.2: More Graphs and Displays 2.3: Measures of Central Tendency 2.4: Measures of Variation 2.5: Measures of Position

**Module II** 12 hrs Chapter3 Probability 3.1: Basic Concepts of Probability and Counting 3.2: Conditional Probability and the Multiplication Rule 3.3: The Addition Rule 3.4: Additional topics in probability and counting

**Module III** 22 hrs Chapter4 Discrete Probability Distribution 4.1: Probability Distributions 4.2: Binomial Distributions 4.3: More Discrete Probability Distributions Chapter5 Normal Probability Distribution 5.1: Introduction to Normal distributions and Standard Normal Distributions 5.2: Normal Distributions: Finding Probabilities 5.3:Normal Distributions: Finding Values

**References:** 1 Mario F. Triola: Elementary Statistics(13/e) : Pearson Education, Inc(2018) ISBN: 9780134462455 2 Neil A. Weiss: Elementary Statistics(8/e) Pearson Education, Inc(2012) ISBN: 978­0­321­69123­1 3 Nancy Pfenning: Elementary Statistics: Looking at Big Picture Brooks/Cole Cengage Learning(2011) ISBN: 978­0­495­01652­6 4 Frederick J Gravetter, Larry B. Wallnau: Statistics for the Behavioral Sciences (10/e) Cengage Learning(2017) ISBN: 978­1­305­50491­2 5 Seymour Lipschutz, John J. Schiller, R. Alu Srinivasan: Beginning Finite Mathematics Schaum’s Outline Series, McGraw­Hill(2005) 6 Michael Sullivan: Finite Mathematics An Applied Approach(11/e) Joh