**BCM4C04 QUANTITATIVE TECHNIQUES FOR BUSINESS**

**Lecture Hours per week: 5, Credits: 4 Internal: 20, External: 80, Examination 2.5 Hours**

 **Objectives:**

 To familiarize student with the use quantitative techniques in managerial decision making.

**Module I** Quantitative Techniques - Introduction - Meaning and definition - Classification of Q.T - QT and other disciplines - Application of QT in business - Limitations. (10 Hours, 10 Marks)

 **Module II** Correlation and Regression Analysis: Meaning and definition of Correlation - Karl Pearson's co-efficient of correlation - Rank correlation - Regression - Types - Determination of simple linear regression - Coefficient of determination. (20 Hours, 20 Marks)

 **Module III** Set Theory - Venn Diagrams - Probability: Concept of probability - Meaning and definition - Approaches to probability - Theorems of probability - Addition Theorem - Multiplication Theorem -Conditional probability- Inverse probability- Baye'sTheorem. (15 Hours, 15 Marks)

 **Module IV** Theoretical Distribution: Basic assumptions and characteristics - Probability distribution - Fitting of probability distribution - Binomial distribution - Fitting of binomial distribution - Poisson distribution - Fitting of Poisson distribution - Normal distribution - Features and properties - Standard normal curve. (20 Hours, 20 Marks)

 **Module V** Quantitative approach to decision making- Types and steps in decision making-Decision tree analysis-Different types of models-Model building steps - Linear programmingconcepts - Mathematical formulation - Solution of LPP using graphic method (15 Hours, 15 Marks)