CLASS - XI

SEMESTER – II

SUBJECT : STATISTICS (STAT)

FULL MARKS: 35   **CONTACT HOURS: 40 Hours**

COURSE CODE : THEORY

UNIT No.	TOPICS	CONTACT HOURS	MARKS
UNIT 1	Measures of Dispersion: Range, Mean deviation, Standard deviation, Quartile deviation, Coefficient of variation, Quantile and Percentile with relation between different measures	10	10
UNIT 2	Raw and central moments up to fourth order and their conversions Cauchy –Schwartz Inequality Measures of Skewness and Kurtosis: Different measures based on moments and quantities(associated inequalities involving b_1 and b_2 coefficients)	07	06
UNIT 3	Random experiment: Sample Space, Notion of events and operations with events. Definition of Probability: Classical and Relative frequency approach to probability with limitations. Axiomatic Definition of Probability (Statement only) Theorem of Total Probability, Bonferroni's inequality, Boole's inequality. Compound Probability, Conditional Probability and Bayes' theorem, Statistical Independence of events (No. of events not more than three) and related problems.	12	12
UNIT 4	Concept of polynomials, Different forms of n-th degree polynomials relating to two different interpolation formulae, Remainder theorem. Concept of Interpolation, Δ and E operators and their relation. Simple Interpolation : Newton's Forward and Backward Interpolation formulae (without Derivation)	05	03
UNIT 5	Population Statistics: Introduction: Vital events, Sources of data on Vital events, Rates and Ratio of vital events. Measurement of Mortality: CDR,SDR,STDR Measurement of Fertility: CBR,GFR,ASFR,TFR Measurement of Population Growth: Crude rate of Natural increase and Vital index.	06	04
TOTAL		**40 Hours**	**35**

[Note:20 Hours reserved for Remedial classes, Tutorials and Home Assignments.]