CBCS BA Part III semester V

Syllabus for Open Elective Course (OEC) – Statistics

Title of the course /subject : Measures of Central Tendency

Unit	**Content**	
Unit I	Introduction to Statistics 1.1 Meaning, origin and development of Statistics 1.2 Various definitions of Statistics. 1.3 Importance and Scope of Statistics. 1.4 Limitations of Statistics.	
Unit II	Data & its presentation 2.1 Meaning and types of data. 2.2Frequency distribution 2.3 Classification of data, Definition, Classes, Class interval, exclusive and inclusive classes. 2.4 Rules, advantages and disadvantages of classification.	
Unit III	Central Tendency or average 3.1 Concept and meaning of central tendency. 3.2 Need and advantages of central tendency. 3.3 Various measures of central tendency. 3.4 Characteristics and ideal measures of central tendency.	
Unit IV	Mean, Median and Mode 4.1 Definition of arithmetic mean (simple series and frequency data), properties, merits and demerits of arithmetic mean. 4.2 Definition of median, merits, demerits and uses of median. 4.3 Definition of mode, merits, demerits and uses of mode. 4.4Relation between mean, median and mode, simple problems on mean, median and mode.	
Unit V	Geometric mean and Harmonic mean 5.1Definition, merits and demerits of geometric mean. 5.2 Uses of geometric mean, Relation between arithmetic mean & geometric mean. 5.3 Definition, merits and demerits of harmonic mean. 5.4 Relation between arithmetic mean, harmonic mean & geometric mean. Simple problems	

Reference Books:

1) Goon A.M., Gupta M.K., Dasgupta B: Fundamental of Statistics, Vol 1, 2, World Press Calcutta.
2) Gupta S.C. , Kapoor V.K. : Fundamental of Mathematical Statistics; S. Chand & Company
3) मुलभूत सांख्यिंकी प्रा. राम देशमुख विद्दयाप्रकाशन
4) संख्यात्मक तंत्रे प्रा. राम देशमुख विद्दयाप्रकाशन
5) सांख्यिंकीमुलभूततंत्रे : प्रा. पुरूषोत्तम नवघरे, नभप्रकाशन

CBCS BA Part III semester VI

Syllabus for Open Elective Course (OEC) – Statistics

Title of the course /subject : Applied Statistics/Application of Statistics

Unit	**Content**	
Unit I	Introduction to Statistics & its scope 1.1 Statistics subject introduction, Scope and Limitation 1.2 Indian Statistical System. 1.3 Work of the great Indian Statistician. 1.4 Statistics Organisation in India	
Unit II	Data & its presentation 2.1 Meaning of Statistics as science, its importance, merits and demerits. 2.2 Types of Data : Qualitative and Quantitative data, nominal, ordinal, ratio and interval, discrete and continuous data, frequency and non-frequency data. 2.3 Classification of data, Definition, Classes, Class interval, exclusive and inclusive classes. 2.4 Use of Statistics in Commerce and industries, Psychology, Research.	
Unit III	Measures of Dispersion, Skewness and Kurtosis 3.1 Concept of dispersion and its various measures. 3.2 Meaning of Skewness and its measures. 3.3 Meaning of Kurtosis and its measures. 3.4 Simple problems on dispersion, coefficient of dispersion, skewness and kurtosis.	
Unit IV	Correlation 4.1 Concept of correlation, scatter diagram and positive and negative correlation. 4.2 Karl Pearson's coefficient of correlation. 4.3 Properties of correlation coefficient. 4.4 Rank correlation coefficient.Simple Problems.	
Unit V	Regression Analysis 5.1 Concept of regression, lines of regression, two lines of regressions. 5.2 Coefficient of regression and its derivation, properties of regression coefficients. 5.3 Principle of least square, fitting of linear regression, polynomial and exponential curve. 5.4 Simple problems.	

Reference Books:

1) Goon A.M., Gupta M.K., Dasgupta B: Fundamental of Statistics, Vol 1, 2, World Press Calcutta.
2) Gupta S.C. , Kapoor V.K. : Fundamental of Mathematical Statistics; S. Chand & Company
3) मुलभूत सांख्यिंकी प्रा. राम देशमुख विद्दयाप्रकाशन
4) संख्यात्मक तंत्रे प्रा. राम देशमुख विद्दयाप्रकाशन
5) सांख्यिंकीमुलभूततंत्रे : प्रा. पुरूषोत्तम नवघरे, नभप्रकाशन