SRI VENKATESWARA UNIVERSITY: TIRUPATI
B.A / B.COM / B.SC.DEGREE COURSE
LIFE SKILL COURSE
FIRST YEAR – SECOND SEMESTER
UNDER CBCS W.E.F. 2020-21

ELEMENTARY STATISTICS

Objective: To provide basic understating of general statistical tools and their elementary applications and to create awareness on Indian Statistical System.

Learning outcomes

Unit-I: To understand the concept of Statistics and its merits and demerits. Distinguishing primary and secondary data. Classification, Tabulation and Pictorial representation of data.

Unit - II: To understand the basic nature of data and how a single value describes the entire dataset. Measuring the degree of departure of a distribution from symmetry and reveals the direction of scatterdness of the items.

Unit - III: To understand the spread of the data and to draw conclusions from the comparison of averages.
 To understand the concept of correlation and regression and to learn the degree of association between two variables and establishing relationship between the variables.

SYLLABUS

UNIT - I   Meaning, scope and limitations of Statistics Collection of data: Primary and Secondary, Classification and Tabulation, Construction of frequency distribution.
Graphical Representation: Histogram, Bar, Pie and Frequency polygon.   **(8hrs)**

UNIT - II   Measures of Central Tendency: Features of good average, Arithmetic Mean, Median, Mode. Empirical relationship between Mean Median and Mode and skewness based on central values.   **(8hrs)**

UNIT - III   Measures of Dispersion: Range, Quartile Deviation (QD), Mean Deviation (MD), Variance, Standard Deviation (SD), relationship between QD, MD and SD. Familiarization of the concepts relating to Correlation and Linear Regression line. **(8hrs)**

Books for Study:

1. Statistics (Theory, Methods, Application) D C Sancheti, V K Kapoor, Sultan Chand and Sons, New Delhi
2. Statistical Methods, S.P. Gupta, Sultan Chand and Sons, New Delhi
3. Statistics (Theory and Practice) B.N Gupta, Sahitya Bhavan, Agra

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http://onlinestatbook.com/Online_Statistics_Education.pdf
Degree: Arts/Science/Commerce
Program Name: Foundation Course
Course Name: Elementary Statistics
Semester: I/II/III   **Hrs/Week: 2**   **Credits: 2**

Co-curricular activities:

Objective is to apply the theoretical concept to real life data which enhances the learning and interpretation ability to the current environment.

CoCA I: (i) Collect primary or secondary data and establish frequency distribution.

(ii) Suitable pictorial/ Graphical representation to the established frequency Distribution

CoCA II: (i) Select the data and then calculate AM, Median and Mode and interpret the Result.

(ii) Calculate the skewness based on central values and interpret the degree of departure of a distribution from symmetry and the direction of scatterdness Of the items.

CoCA III: (i) Calculate the dispersion values of a data for a single or double data sets and to draw conclusions from the comparison of averages.

(ii) Select the bivariate data (for example, select marks of any two subjects of your course) and calculate the degree of association and establish the linear relationship and find the forecasting value.

CoCA IV: If there is an internet facility at your college/home, go through the Ministry of Statistics and Program Implementation site www.mospi.gov.into know about the Indian Statistical System and https://desap.cgg.gov.inor www.apdes.in to know about the Andhra Pradesh Directorate of Economics and Statistics(APDES) and its activities.

ELEMENTARY STATISTICS
MODEL QUESTION PAPER

TIME: 1 ½ hours (90 Min.)   **MAX. MARKS: 50**

SECTION-A   **(Total: 4x5=20 Marks)**

Answer any four questions. Each answer carries 5 marks

1. **Limitations of statistics.**

2. **Pie diagram.**

3. **Histogram.**

4. **Characteristics of a good average.**

5. **Skewness.**

6. **Merits of standard deviation.**

7. **Regression lines.**

8. **Questionnaire.**

SECTION-B   **(Total: 3x10=30 Marks)**

Answer ONE Questions from each UNIT. Each answer carries 10 marks

UNIT-I

9. **a) Define Statistics and examine its importance in the measurement of economic activity.**

OR

   b) Explain concepts of classification and tabulation of statistical data.

UNIT-II

10 **a) Calculate mean for the following data**

Class Interval:	0-10	10-20	20-30	30-40	40-50	50-60
Frequency :	4	6	10	15	8	7

OR

   b) Calculate mode for the following data

Monthly wage:	20-30	30-40	40-50	50-60	60-70	70-80	80-90
No. of employees:	28	32	45	60	56	40	20

UNIT-III

11 **a) Calculate coefficient of quartile deviation from the following data**

Marks:	10	20	30	40	50	60
No.of students:	4	7	15	8	7	2

OR

   b) Calculate standard deviation and coefficient of variation to the following data.

X:	0-10	10-20	20-30	30-40	40-50	50-60	60-70
F:	6	11	15	28	21	12	7