SRI VENKATESWARA UNIVERSITY

TIRUPATHI

B.A.,STATISTICS(*NON MATHEMATICS*)

UG (CBCS) SEMESTER PATTERN

REVISED SYLLABUS

(W.E.F 2020-21 ADMITTED BATCH)

I TO IV SEMESTERS

SRI VENKATESWARA UNIVERSITY - TIRUPATHI

B.A.,STATISTICS (NON- MATHEMATICS)

REVISED SYLLABUS FOR CORE COURSES

CBCS / SEMESTER SYSTEM (w.e.f.2020-21 ADMITTED BATCH) COURSE STRUCTURE (SEMESTER-I TO SEMESTER-IV)

Semester	Paper	Title of course	Credits	Hrs	Marks		
					IA	SEE	Total
I	**I**	**Paper - I Elementary Mathematics**	**4**	**4**	**25**	**75**	**100**
		Practical- 1	**1**	**2**	**0**	**50**	**50**
II	**II**	**Paper II - Descriptive Statistics**	**4**	**4**	**25**	**75**	**100**
		Practical-2	**1**	**2**	**0**	**50**	**50**
III	**III**	**Paper - III Statistical Methods and Probability**	**4**	**4**	**25**	**75**	**100**
		Practical-3	**1**	**2**	**0**	**50**	**50**
IV	**IV**	**Paper-IV Probability Distributions, Correlation and Regression**	**4**	**4**	**25**	**75**	**100**
		Practical-4	**1**	**2**	**0**	**50**	**50**
	V	**Paper - V Statistical Applications**	**4**	**4**	**25**	**75**	**100**
		Practical-5	**1**	**2**	**0**	**50**	**50**

OBJECTIVE OF THE COURSE

Statistics is a key to success in the field of science and technology. Today, the students need a thorough knowledge of fundamental basic principles, methods, results and a clear perception of the power of statistical ideas and tools to use them effectively in modeling, interpreting and solving the real life problems. Statistics plays an important role in the context of globalization of Indian economy, modern technology, computer science and information technology.

The main objectives of the course are

- To build the basis for promoting theoretical and application aspects of statistics.
- To underline the statistics as a science of decision making in the real life problems with the description of uncertainty.
- To emphasize the relevance of statistical tools and techniques of analysis in the study of inter-disciplinary sciences.
- To acquaint students with various statistical methods and their applications in different fields.
- To cultivate statistical thinking among students.
- To develop skills in handling complex problems in data analysis and research design.
- To prepare students for future courses having quantitative components.

B.A., I YEAR : STATISTICS SYLLABUS

(For Non - Mathematics Combination)

Semester - II CBCS

PAPER - II : DESCRIPTIVE STATISTICS

Course Outcomes:

After successful completion of this course, the student will be able to;

1) knowledge of Statistics and its scope and importance in various areas such as Medical, Engineering, Agricultural and Social Sciences etc.
2) knowledge of various types of data in diagrammatic representation.
3) Brief analyzing in different types of data and tabulated.
4) knowledge of various types of data, their organization and evaluation of summary measures such as measures of central tendency and dispersion etc.
5) insights into preliminary exploration of different types of data.

COURSE SYLLABUS:

UNIT - I

Introduction to Statistics: Statistics Definition, primary and secondary data, methods of collecting primary and secondary data. Statistical enquiry, questionnaire and schedule.

UNIT – II

Classification and tabulation: classification of data, frequency distribution, rules of tabulation, simple and complex tables, single, double and manifold tables.

UNIT – III

Diagrammatic Representation : Bar diagrams, pie charts. Histogram, frequency polygon, ogives.

UNIT-IV

Measures of Central Tendency: Mean, Median, Mode, merits and demerits, finding median by graphic method, quartiles.

UNIT-V

Measures of Dispersion: Range, Q.D, S.D, M.D, Coefficient of variation.

Note :1. Concentration on numerical problems Only.

2. Proofs of theorems and Derivations of expressions are omitted.

Text Books:

1. Statistical methods - S.P.Gupta.
2. Fundamentals of Mathematical statistics - SC Gupta and V.K.Kapoor

Reference Books :

Quantitative Techniques1 –Sulthan ChandPublication

Paper-2: Practicals:

1. Arithmetic Mean, Median, Mode
2. Calculation of CV and itscomparisons.
3. Bar diagrams.
4. Pie diagram.
5. Histogram.
6. Frequency polygon.
7. O give curves.
8. Quartile Deviation
9. Mean Deviation
10. Standard Deviation.

B.A.,I YEAR : STATISTICS MODEL PAPER

(NON-MATHEMATICS COMBINATION)

SEMESTER-II: PAPER-II

DESCRIPTIVE STATISTICS

(Statistical tables and Electronic Calculators are allowed)

TIME: 3 HOURS **MAX.MARKS:75**

SECTION-A

ANSWER ANY FIVE QUESTIONS. EACH QUESTION CARRIES 5 MARKS 5X5=25M

1. Explain Various definitions of Statistics.
2. Define Primary data and secondary data.
3. Write rules of tabulation.
4. Explain frequency distribution with one example.
5. Construct frequency polygon for the following data

Class interval	Mid values	No.of employees
0-10	5	2
10-20	15	4
20-30	25	8
30-40	35	3
40-50	45	5

6. Define o give curves.

7. Compute mean from the following frequency distribution.

x	1	2	3	4	5	6	7
y	5	9	12	17	14	10	6

8. Find the Median and Mode from the following data

4,5,6,4,5,4,10

9. Compute Quartile deviation from the following data

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

10. If mean of a distribution is 160,Mode 157 and Standard distribution is 50 then find Coefficient of variation.

SECTTION-B

ANSWER ANY FIVE QUESTIONS.EACH QUESTION CARRIES 10 MARKS 5X10=50M

11.(a) Explain various methods of collecting primary data.

(OR)

(b). Explain Questionnaire and schedule.

12.(a) Classification of 100 students based on the marks obtained by them in physics and chemistry in an examination. It is shown in the below table:

Marks out of 50/Subject	**40 and above**	**30 and above**	**20 and above**	**10 and above**	**0 and above**
Physics	9	32	80	92	100
Chemistry	4	21	66	81	100
Average	7	27	73	87	100

(i) what is the number of students scoring less then 40% marks in aggregate.

(ii) If at least 60% marks in physics are required for pursuing higher studies in physics, how many students will be eligible to pursue higher studies in physics.

(OR)

(b). Define tabulation. Explain various types of tables.

13.(a)Draw histogram for the following data

Age	2-5	5-11	11-12	12-14	14-15	15-16
No.of Boys	6	6	2	5	1	3

(OR)

(b). Prepare pie chart for expenditure in book publishing for the following data

Items of expenditure	**Family A**	**Family B**
Food	12000	15000
Clothing	5000	8000
House rent	15000	12000
Education	18000	5000
Miscellaneous	10000	10000

14.(a)Calculate Arithmetic mean of the marks from the following data

Marks	0-10	10-20	20-30	30-40	40-50	50- 60
No.of students	12	18	27	20	17	6

(b). Find the mode of the following data

Marks	0-10	10-20	20-30	30-40	40-50
No.of students	3	15	7	10	12

15.(a) Calculate mean deviation from the following data

x	5	10	15	20	25	30
f	3	4	8	12	7	2

(b). Compute Coefficient of Quartile deviation to the following data

Marks	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100
Students	10	15	28	32	40	35	26	14	10	5