ST. JOSEPH'S COLLEGE FOR WOMEN (AUTONOMOUS) VISAKHAPATNAM

II SEMESTER   **STATISTICS**   Time:2hrs/week

ST-Mi1-2251(2)   **DESCRIPTIVE STATISTICS**   Marks:50

w.e.fAK 2023-2024 (Admitted batch) **PRACTICAL SYLLABUS**

OBJECTIVES:

1. The objective of this paper is to throw light on the role of statistics in different fields with special reference
to business and economics.
2. It gives the students to review good practice in presentation and the format most applicable to their own
data.
3. The measures of central tendency or averages reduce the data to a single value which is highly useful for
making comparative studies.
4. The measures of dispersion throw light on reliability of average and control of variability
5. The concept of Correlation and Linear Regression deals with studying the linear relationship between two
or more variables, which is needed to analyze the real life problems.
6. The attributes gives an idea that how to deal with qualitative data.

LEARNING OUTCOMES:

After successful completion of the course students will be able to:

1. To acquaint with the role of statistics in different fields with special reference to business and
economics.
2. To review good practice in presentation and the format most applicable to their own data.
3. To learn the measures of central tendency or averages reduce the data to a single value which
is highly useful for making comparative studies.
4. To familiar with the measures of dispersion throw light on reliability of average and control of
variability.
5. To deal with the situation where there is uncertainty and to measure that uncertainty by using
the probability, which is essential in all research areas.

SYLLABUS:

1. Writing a Questionnaire in different situations.

2. Forming a grouped and ungrouped frequency distribution table.

3. Diagrammatic presentation of data – Bar, multiple Bar and Pie.

4. Graphical presentation of data – Histogram, frequency polygon, Ogives.

5. Computation of measures of central tendency – Mean, Median and Mode.

6. Computation of measures of dispersion – Q.D., M.D and S.D.

7. Computation of non-central, central moments, $\beta 1$ and $\beta 2$ for ungrouped data.

8. Computation of non-central, central moments, $\beta 1$ and $\beta 2$ and Sheppard's corrections for
grouped data.

9. Computation of Karl Pearson's and Bowley's Coefficients of Skewness.

NOTE: Training shall be on establishing formulae in Excel cells and derive the results. The excel output shall be exported to MS word for writing inference.

III. REFERENCES:

1. S. C. Gupta & V. K. Kapoor: Fundamentals of Mathematical Statistics, Sultan Chand & Sons, New Delhi.
2. O. P. Gupta: Mathematical Statistics, Kedarnath Ram nath& Co.
3. P. N. Arora & S. Arora: Quantitative Aptitude Statistics – Vol II, S. Chand & Company Ltd.
4. K. Rohatgi&Ehsanes Saleh: An Introduction to Probability and Statistics, John Wiley & Sons.

IV. SUGGESTED CO-CURRICULAR ACTIVITIES:

1. Training of students by related industrial experts

2. Assignments including technical assignments if any.

3. Seminars, Group Discussions, Quiz, Debates etc. on related topics.

4. Preparation of audio and videos on tools of diagrammatic and graphical representations.

5. Collection of material/figures/photos/author photoes of related topics.

6. Invited lectures and presentations of stalwarts to those topics.

7. Visits/field trips of firms, research organizations etc.

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