

SRI VENKATESWARA UNIVERSITY : TIRUPATI

STATISTICS SYLLABUS (II YEAR)

Semester – III (CBCS Non Maths Combination BA)

Paper – III : Statistical Methods

UNIT - I

Moments: Definition, Types of moments: Central and Non-central moments. Sheppard's Correction for moments. Skewness and Kurtosis : Definition, Types and its measures with simple problems

UNIT - II

Attributes: Notations, Class, Order of class frequencies, Ultimate class frequencies, Consistency of the data, Conditions for consistency of data for 2 and 3 attributes only , Independence of attributes , Association of attributes and its measures, Contingency table and its coefficients: Square contingency(χ^2), Mean square contingency(Φ^2), Coefficient of mean square contingency (C), Tschuprow's coefficient of contingency (τ^2).

UNIT – III

Curve fitting: Definition and Principals of least squares, Fitting of straight line ($y = a + b x$), Fitting of Second degree polynomial ($y = a + b x + c x^2$), Fitting of power curve ($y = a x^b$) and exponential curves of type i) $y = a e^{b x}$ and ii) $y = a b^x$ with problems.

UNIT - IV

Correlation: Definition, Types of Correlation. Measures of Correlation: Scatter diagram, Coefficient of correlation, Rank Correlation Coefficient (with and without ties). Linear Regression: Regression lines, Regression coefficients and its properties, Regressions lines for Un grouped data and simple problems(without proofs).

UNIT - V

Interpolation: Definition, Binomial expansion method and Graphic method. Methods of interpolation: Statement of Newton's forward formula, Newton's Backward formula, Lagrange's formula and simple problems on it.

Reference Books:

1. Fundamentals of mathematical statistics: S.C.Guptha and V.K. Kapoor
2. An outlines of statistics, Vol II: Goon Guptha, M.K.Guptha and Das Guptha B
- 3 Basic statistics By B.N Aggrawal
4. Statistical method by S.P. Gupta
5. Fundamentals of Statistics by S.C. Gupta
4. Statistical methods and inference BA/BSc II year statistics- Telugu Academy
5. Statistics Made simple Do it yourself on PC By K.V.S. Sarma
6. Applied Statistics with Microsoft Excel By Gerald Keller

2020/2021
30/11/2016

Practical Paper - III

1. Calculation of Central Moments
2. Calculation of Karlpearson's coefficient of skewness
3. Calculation of Bowley's Coefficient of skewness
4. Calculation of Correlation coefficient for un groped data
5. Calculation of Rank Correlation coefficient with ties for un grouped data
6. Calculation of Rank correlation coefficient without ties for un grouped data
7. Construction of two regressions lines for un grouped data
8. Fitting of straight line $y = a + b x$
9. Fitting of second degree polynomial or parabola $y = a + b x + c x^2$
10. Fitting of exponential curve $y = a e^{b x}$
11. Fitting of curve $y = a b^x$
12. Fitting of power curve $y = a x^b$
13. Calculation of Yule's coefficient of association and colligation
14. Calculation of Coefficient of mean square contingency (C), Tschuprow's coefficient of contingency (τ^2).
15. Newton's forward formula
16. Newton's backward formula
17. Lagrange's formula

Note : The above practical are to be done using M S Excel and SPSS Package where ever it is possible

Deena
30/11/2016