



**PARVATHANENI BRAHMAYYA
SIDDHARTHA COLLEGE OF ARTS & SCIENCE**
Autonomous
Siddhartha Nagar, Vijayawada-520010
Re-accredited at 'A+' by the NAAC

23STVAP103: Essentials of Statistics for Physics
Offered to :B.Sc.Hons(Physics)

SEMESTER : I

45Hours

Credits : 2

Course Type: Value-Added

UNIT-I : Basics of Statistics

Collection of data – Classification of data – Tabulation – Presentation – Simple Bar & Multiple Bar charts, Pie chart, Histogram, Polygon

UNIT-II : Measures of Central Tendency & Dispersion

Mean, Median and Mode - Range, Standard deviation and Variance – un grouped and grouped data with simple problems.

Moments – First four Central & Non- Central – simple problems

Skewness & Kurtosis using moments

UNIT-III : Correlation & Regression Analysis

Simple, Rank, Multiple and Partial Correlations – Regression equations

UNIT-IV

Scaling Methods, Errors – Biased & Unbiased errors and its types. Poisson and Normal Distribution- definition- properties and applications .

TEXT BOOK:

S.C. Gupta, (2019), Seventh Edition, Fundamentals of Statistics, Mumbai: Himalaya Publishing House.

REFERENCE BOOKS

1. Sharma, J. K. (2013), *Business statistics*, New Delhi: Pearson Education
2. Levine, D.M., Berenson, M. L. & Stephan, D. (2012), *Statistics for managers using Microsoft Excel*, New Delhi: Prentice Hall India Pvt.
3. Aczel, A. D. & Sounderpandian, J. (2011), *Complete Business Statistics*, New Delhi: Tata McGraw Hill.
4. Davis, G., & Pecar, B. (2014), *Business Statistics using Excel*, New Delhi: Oxford University Press.
5. *Introduction to Statistics and Data Analysis for Physicists*, Gerhard Bohm, Günter Zech, Verlag Deutsches Elektronen-Synchrotron.

Question Paper Pattern for value –Added Courses (Lab)

(A)SEE (LAB) Model Question Paper

23STVAP103: Essentials of Statistics for Physics

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Max.Marks: 35

Max.Time: 2Hours

Pass. Min: 14

I. Answer any THREE of the following . (Using Spread Sheets) 3 x 10 = 30 Marks

Q1

Q2

Q3

Q4

Q5

II Viva

2 Marks

III Record

3 Marks

(B)CONTINUOUS ASSESMENT:

15 MARKS

Total :

50Marks
