Syllabus of B.Sc. (Statistics) Semester III & Semester IV Syllabus effective from June 2012-2013

VEER NARMAD SOUTH GUJARAT UNIVERSITY, SURAT

B.Sc. Semester III

STATISTICAL METHODS – I (I.D.)

UNIT I: Definitions, Limitations and functions of statistics. 10%

UNIT II: Probability: 30%
Definitions: Sample space, mutually exclusive, equally likely and exhaustive events, independent events. Addition and multiplication theorem of probability, conditional probability (Without proof), simple examples.

UNIT III: Random Variable: 30%

UNIT IV: Measures of Central Tendency and Dispersion: 30%
Definition of mean, median, mode, harmonic mean and geometric mean.
Range, standard deviation, mean deviation from mean, quartiles and quartile deviation, examples for ungroup data, discrete and continuous data.

References:
1. Introduction to mathematical statistics : P.G.Hoel
2. Introduction to mathematical statistics : Goon Gupta, Das Gupta
3. Fundamental of Statistics : D.N.Elhance
5. Applied Statistics : Kapoor & Gupta
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VEER NARMAD SOUTH GUJARAT UNIVERSITY, SURAT
B.Sc. Semester IV
STATISTICAL METHODS – II (I.D.)

UNIT I: Distributions: 25%
Binomial distribution, Poisson distribution and Normal distribution, their properties (without proof) and examples based on them.

UNIT II: Correlation and Regression: 30%
Definition of correlation and correlation Coefficient. Scatter diagram method, Karl Pearsion’s correlation coefficient, Rank correlation method, Examples for these methods.
Regression and regression lines. Properties of Regression Coefficient, Examples for obtaining two regression lines.

UNIT III: Time Series: 20%
Meaning of time series, methods of finding trend (method of moving average only 3 years and 5 years), Method of least square (fitting of only straight line).

UNIT IV: Index Numbers: 25%
Definition and meaning of index number, Contraction, uses and limitations of index number. Methods of finding the index number by (fixed base method, chain base method, cost of living index number method, Paasches method, Laspeyr’s method, Drobish and Bowley’s method, Marshell-Edgeworth method, Fishers’ index number method).
Time reversal test, factor reversal test, examples based on above methods.

References:
1. Introduction to mathematical statistics : P.G.Hoel
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