(COMMON FOR THE FACULTIES OF ARTS & SCIENCE)

MOHANLAL SUKHADIA UNIVERSITY, UDAIPUR
FIRST YEAR B.A /B.Sc
STATISTICS
2016-17

Papers	Periods per week	Examination Hours	Maximum Marks	
Theory Papers			B.A	B.Sc.
Paper I	2	3	45	50
Paper II	2	3	45	50
Paper III	2	3	45	50
Practicals**	4	4	65	75
Total Marks			200	225

* **1 Period = 1 hours**

** **per batch**

NOTE:

1. Common papers will be set for both the Faculties of Arts & Science.

2. Students are allowed to use simple electronic desk calculators (as per University guidelines).

3. Statistical Tables may be used (as per University guidelines)

PAPER – I
DESCRIPTIVE STATISTICS

TIME: 3 hours   **Max. Marks**

UNIT - I

Definition and History of Statistics, Concept of statistical population. Attributes and Variables, different methods of collection, classification and tabulation of statistical data. Representation of Data: Discrete and continuous variates, Construction of frequency tables for grouped and ungrouped data in uni-variate and bivariate cases, Histogram, Frequency polygon, curves and ogives, One, two and three-dimensional diagrams.

UNIT - II

Measures of Location: Arithmetic mean, weighted arithmetic mean, geometric mean and harmonic mean, Median and Mode. Requisites of an ideal measure of central tendency, merits and demerits of various measures of central tendency. Partition Values: Quartiles, Deciles and Percentiles.

UNIT - III

Measures of Dispersion: Range, Semi-interquartile range, Mean deviation, Root mean square deviation, Standard deviation and coefficient of variation. Lorenz curve, Requisites of an ideal measure of dispersion.

UNIT - IV

Moments: Raw, central, factorial and absolute moments, Relationship between central, raw and factorial moments.

Charlier's checks and Sheppard's corrections (without proof), effect of change of origin and scale on moments. Different measures of Skewness and Kurtosis.

UNIT - V

Theory of Attributes: Class frequencies and their order (up to three attributes only), consistency of data, association and independence of attributes. Yule's coefficient of association and coefficient of colligation.

Recommended Books :

1. Gupta S.C. and Kapoor, V.K : Fundamentals of Mathematical Statistics, Sultan Chand & Sons, New Delhi
2. Kapur, J.N and Saxena, H.C. : Mathematical Statistics,. S.Chand & Company Ltd., New Delhi.

Reference Books:

1. Gokhroo, D.C. & Saini, S.R.   : Mathematical Statistics (Hindi edition), Navkar Prakashan, Ajmer.
2. Gupta, S.P.   : Statistical Methods, Sultan Chand & Sons, New Delhi.
3. Rao N.S., Suthar S.P.   : Business Statistics (Hindi edition), Alka and Gupta
   S.L. Publication,   Ajmer.