

MOHANLAL SUKHADIA UNIVERSITY, UDAIPUR
SECOND YEAR B. Sc. STATISTICS 2016-17

PAPER- III
APPLIED STATISTICS

TIME: 3 hours

Max. Marks 50

UNIT-1

Theory of curve Fitting: Method of least squares, fitting of straight line, parabola, Kth degree polynomial, exponential and logarithmic curves (reducible to linear forms). Most plausible solution of linear equations.

UNIT-II

Linear correlation and regression, concept of intra-class correlation, Spearman's rank correlation.

UNIT-III

Partial Correlation coefficient, Multiple correlation coefficient and multiple regression for three variables only.

UNIT-IV

Time series and its components, methods of determining trend and seasonal components.

UNIT-V

Index Numbers: Problems involved in the construction of Index numbers, types of index numbers, construction of index numbers by aggregate methods and price relative methods, chain indices.

Requisites of an ideal index number. Uses and limitation .of the index numbers. Errors in index numbers. Base shifting, splicing and deflating concepts, cost of living and wholesale price index numbers.

Recommended Books:

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| 1. Gupta S.C. and Kapoor V.K.
Sultan Chand & Sons, New Delhi. | : Fundamentals of Mathematical Statistics, |
| 2. Gupta S.C. and Kapoor V.K. | : Fundamentals of Applied Statistics,
Sultan Chand & Sons, New Delhi. |
| 3. Kapur, J.N.and Saxena H.C. | : Mathematical Statistics, S.Chand & Company
Ltd., New Delhi. |
| 4. M.K. and Das Gupta, B(1991) | : Fundamentals of Statistics Vol. I & II World
Press, Calcutta |