# M.A. (FINAL) ECONOMICS

## Optional Paper

# Paper-X-D

# COMPUTER APPLICATION IN ECONOMIC ANALYSIS

#### Unit I

Basic components of computer - CPU, input-output devices, keyboard, mouse and scanner video display, printers and plotters, data storage and retrieval, hard disk, floppy disk and CD ROM; Types of computers and their applications; Computer networking and resource sharing, hardware, software and firmware, examples and techniques in programming languages like C, C++, Visual, Basic and Jawa.

## Unit II

Concept of data, record and file; Types of data and data structures, data analysis; File handling and operations like opening, appending and cascading, closing and attribute control; Data storage and retrieval; Data operations; Algorithms like sorting, merging, joining and bifurcation, Database concepts and operation on database; DBMS and RDBMS.

#### Unit III

Series, groups, tables, graphs and objects; Time and frequency series, regression methods and techniques,

Regression analysis; Data validation; Trends and cyclecity forecasting; system modelling and description; system equation; specification; Error and correction strategies, Statistical modelling and descriptive statistics; Distribution functions, Regression statistics.

#### Unit IV

On line banking; ATM's Electronic stock exchange; Electronic trading; Data sharing and decimation; Electronic transaction; Document delivery; Authentication and validation transaction processing.

#### Unit V

Electronic trading and marketing; On line shopping and malls, B2B, B2C, C2B and G2B models and their applications; Document and transaction security and digital signature; Integrated transaction on mobile platforms.

### BASIC READING LIST

- ➤ Rajasekaran, S. (1986), Numerical Methods in Science and Engineering, A.H. Wheeler, Allahabad.
- Sanders, D.H. (1988), Computers Today, McGraw Hill (3<sup>rd</sup> Edition), New York.
- > Sinha, P.K. (1992), Computer Fundamentals, BPB Publications, New Delhi.