SYLLABUS

Elementary computer applications

Common for Arts, Science & Commerce faculties

1. **Information concepts and processing:**
   Definition of information, need quality and value of information, categories of information in business organization level of information, storage and retrieval of data, comparison of manual and electronic storage of date, organization of data as files, data processing in government, large business, multinational and private organization.

2. **Elements of Computer Inter Processing System:**
   The electronic digital computer, the number systems (binary, digital, octal and hexadecimal and their conversions), character code (ASCII and EBCDIC), concept of hardware and software, the architecture of a computer system. CPU, memory and input/output devices, magnetic storage devices, optical devices, printers and monitors, categories of software, system software, application software, packages.

3. Classification of Computers and Generation of Computers, parallel processing and component, RISC and CISC machines, development of Intel family processors.

4. **Operating System concept:**
   The need of an OS (Operating System), OS as resource processor and memory Manager, the various types of operating system, MS-DOS, WINDOWS 95/98, WINDOWS 2000, UNIX Operating System.

5. **Computer and Communication:**
   Need for data transmission over distances, communication channels; twisted pair coaxial cable, microwave, radio wave, optical fiber and satellite; digital and analog transmission, 15 serial and parallel data transmission, Modems, Networking of computers, LAN, WAN concepts.

6. **Programming Languages:**
   Machine, Assembly and high level languages Generation of Languages, 3 GL and 4 GL languages, and Graphic User Interfaces.

7. **Personal Computer Software:**
   Word processing Packages, Spreadsheet Packages and Database Management Packages, Desktop Publishing, Computer Animation Packages Introduction to MS-Office.

8. **Internet Technology:**
   Concept and how it work, E-mail service, Internet surfing, browsers and search engines, World Wide Web, Web Programming. HTML and JAVA Programming Concepts.

9. **E-commerce:**
   What is e-commerce and growth of e- commerce electronic payment systems security considerations, digital currencies, Credit cards, cybercast, e-cash, smart card, supply chain management.

10. Benefits of electronic forms of data processing and management in education, commerce public delivery systems banking and other financial transactions, new developments in these areas.

Laboratory:
The laboratory exercise will be designed to help in the understanding of the concepts of computer and the utilization in the areas outlined in the theory syllabus. The emphasis should be on practical uses rather than on theoretical concepts only.