

Syllabus for B.Sc-IT Course

at S.P. College

SEMESTER-I

COURSE TITLE: FUNDAMENTALS OF IT

COURSE CODE – BIT-104

UNIT-I

Data Information Concepts

Data, Information Concept, Information System, Types of Information System, Office Automation System, Transaction Processing System, Management Information System, Decision Support System, Need for Information, Characteristics of Information, Quality of Information, Categories of Information, Comparative Study of Data, Information and Knowledge, Role of Information Technology in Modern World.

Information Processing – Data, Information, Data/Information Acquisition System, Data Processing Terminology, Data Processing System, Electronic Data Processing (EDP) System.

UNIT-II

Computer Fundamentals & Basic Computer Organization :

Characteristics of Computers, Evolution of Computers, Classification of Computers, Application of Computers. Introduction to Computer System, Block Diagram of a Computer, Description of Input Unit, Output Unit, Storage Unit, Central Processing Unit, Arithmetic Logic Unit and Control Unit.

Processor & Memory:

The Central Processing Unit (CPU), The Control Unit, The Arithmetic Logic Unit (ALU), Instruction Set, Registers, Processor Speed, Types Of Processors, The Main Memory Organization, Main Memory Capacity, RAM, PROM & EPROM, E²PROM, & Cache Memory.

Secondary Memory & Number Systems

Sequential & Direct –Access Devices, Magnetic Tape, Magnetic Disks, Optical Disks, Mass Storage Devices.

UNIT-III

Number Systems:

Binary, Decimal, Octal, Hexadecimal Number System, Conversion from One Number System to Another, Computer Codes – BCD, EBCDIC & ASCII.

Computer Hardware / Software /Overview of Database :

Hardware, Software, Firmware, Types of Software, Application Software (Ms Word, Excel, Power point). Data, Data Fields, Records, File, File Organisations, Entity, Attributes, Database, Database Management System (DBMS), DBMS Applications

UNIT-IV

Introduction to Operating System and Internet :

Functions of Operating System, Evolution, Batch Processing, Multiprogramming, Multiprocessing, Time Sharing, Single User & Multi User Operating System.

Internet: Definition (what it is?), Brief History, Basic Services (E-mail, FTP, Telenet, and Use), World Wide Web, Browsers, Users of the Internet, Viruses: Types & Control Measures.

Books Recommended:

1. Foundations of Information Technology by Chanchal Mittal
2. Fundamentals of Information Technology by S.K. Bansal

References:

1. Computer Fundamentals by P.K.Sinha
2. MS Office XP Professional Complete , BPB Publications