AECC-2   Semester -II

Fundamentals of Computers

2 Hours/Week   2 credits

Theory

Unit – I

Introduction to Computers: What is a computer, characteristics of computers, Generations of Computers, classifications of computers, Basic computer organization, applications of Computers. Input and output devices: Input devices, output devices, soft copy devices, hard copy devices. Computer memory and processors: introduction, memory hierarchy, processor registers, cache memory, primary memory, secondary storage devices, magnetic tapes, floppy disks, hard disks, optical drives, USB Flash drivers, memory cards, mass storage devices, Basic Processor Architecture.

Unit – II

Number systems and computer codes: Binary number system, working with binary numbers, octal numbers system, Hexadecimal number system, working with fractions, signed number representation in binary form, BCD Code, other codes. Boolean algebra and logic gates: Boolean algebra, Venn Diagrams, representations of Boolean functions, logic gates, logic diagrams and Boolean expressions using karnaugh map. Computer software: introduction to computer software, classification of computer software, system software, application software firmware, middleware, acquiring computer software, design and implementation of correct, efficient and maintainable programs.

Text: Reema Thareja, Fundamentals of Computers.

References

1. V.Rajaraman, 6th Edition Fundamental of Computers.
   Neeharika Adabala.

2. Anita Goel, Computer Fundamentals.