Information and Communication Technology 2 (1+1)

Theory

UNIT I

Computer Fundamentals: Introduction to computer, hardware, software, Block diagram of computer, characteristics and limitations of computer, problem solving with computer, generation of computers and classification of computers on the basis of size. Input and out devices;

UNIT II

Number System: binary, decimal octal and hexadecimal system. Conversion from one system to the other, binary arithmetic. Computer Languages: Machine language, assembly language, high-level language, 4GL and their advantages and disadvantages; Principles of programming - algorithms and flowcharts.

UNIT III

Operating systems (OS) - definition, basic concepts; Introduction to WINDOWS and LINUX Operating Systems; Local area network (LAN); Wide area network (WAN); Internet and World Wide Web; HTML and IP.

UNIT IV

Introduction to MS Office - Word, Excel, Power Point; Introductions to FOSS for work related to word processing, spreadsheet and presentation Audio visual aids - definition, advantages, classification and choice of A.V. aids; Criteria for selection and evaluation of A.V aids; Video conferencing;.

Practical

Exercises on binary number system; Algorithm and flow chart; Windows Operating System, MS Word; MS Excel; MS Power Point; Internet applications: web browsing, creation and operation of email account;; Handling of audio visual equipments;

Suggested Readings

Gurvinder Singh, Rachhpal Singh & Saluja KK. 2003. *Fundamentals of Computer Programming and Information Technology.* Kalyani Publishers.

Harshawardhan P. Bal. 2003. *Perl Programming for Bioinformatics.* Tata McGraw-Hill Education.

Kumar A 2015. *Computer Basics with Office Automation.* IK International Publishing House Pvt Ltd. Rajaraman V & Adabala N. 2015. *Fundamentals of Computers.* PHI