1/4 B.Tech - FIRST SEMESTER

INTRODUCTION TO INFORMATION TECHNOLOGY
(Only for IT during I B.Tech., I Semester)

Course Code: IT1T6   **Credits:3**
Lecture : 3 Periods/week   **Internal assessment: 30 marks**
Practice/Interaction: 1Period/week   **Semester end examination: 70 marks**

Objectives:
- To provide an overview of computer system
- To introduce the fundamentals of computer programming languages, operating system, database terminology.
- To introduce the basics of information technology, its role and present scenario and basics of multimedia.
- To introduce network concepts, internet tools and search engines.
- To elaborate on future trends of information technology.

Outcomes:
Students will be able to
- Identify system components and utilize computer hardware.
- Describe basics of programming, components of a database and operating system.
- Understand the strategic importance of information technology.
- Understand the fundamental terminology of data communication and internet tools.
- Recognize the applications of IT in various sectors and future trends.

Syllabus:

UNIT-I
Computer Basics- Introduction, Evolution of Computers, Generations of Computers, Classification of Computers, The Computer system, Applications of Computers.
Computer organization and Architecture- Introduction, Central Processing Unit, Types of Number Systems.
Computer Memory and Storage- Introduction, Memory Hierarchy.
Input Output Media- Introduction.

UNIT-II
Computer Programming and Languages- Introduction, Algorithm, Programming Paradigms, characteristics of a Good Program, Programming Languages, Generations of Programming Languages, Features of a Good Programming Language.
Operating System- Introduction, Operating System Definition, Evolution of Operating
System, Types of Operating Systems.
Database Fundamentals- Introduction, Database Definition.

UNIT-III
Information Technology Basics- Introduction, Information, Technology, Information Technology, Present scenario, Role of Information Technology, Information Technology and the Internet
Multimedia:- Introduction, Multimedia- definition, Multimedia Applications.

UNIT-IV
Computer Networks- Computer Network, Network Topologies, Network Devices
Internet- Introduction, Evolution of Internet, Basic Internet Terms, and Getting connected to the Internet, Internet Applications
Internet Tools- Introduction, Web Browser, Browsing Internet using Internet Explorer,
E-mail Address Structure, Search engines

UNIT-V
Current and Future Trends in IT- Introduction, Electronic commerce, Electronic Data Interchange, Smart card, Internet Protocol Television, Blogging, Radio Frequency Identification, Imminent Technologies.

Text Book:
1. Introduction to Information Technology-ITL Education solutions limited, PEARSON.

Reference Book:
1. Fundamentals of Information Technology, 2nd Edition, Alexis Leon, Mathews Leon, (Leon VIKAS)

e-Learning Resources:
1. http://nptel.ac.in/courses.php
2. http://jntuk-coeerd.in/