

Introduction to Information Technology

(Only for IT during I B.Tech., I Semester)

Course Code: IT1T6

Credits:3

Lecture : 3 Hours/week

Internal assessment: 30 marks

Tutorial : 1Hour /week

Semester end examination: 70 marks

Course 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.

Course Outcomes:

At completion of this course, the student would 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

Topic Level Objective: Able to Understand classification of computers, computer architecture and Memory.

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

Topic Level Objective: Able to know the generations of programming languages, operating system and Database basics.

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

Topic Level Objective: Able to Know the Information Technology and Multimedia Basics.

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

Topic Level Objective: Able to Know the Basics of Networks, Internet and Internet Tools.

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

Topic Level Objective: Able to Know the Future Trends in IT.

Current and Future Trends in IT- Introduction, Electronic commerce, Electronic data interchange, Smart card, internet protocol television, Blogging, Radio frequency identification, Imminent Technologies.

Learning Resources:

Text Book:

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

Reference Book:

1. Fundamentals of Information Technology, Second edition, Alexis Leon, Mathews Leon, (Leon VIKAS)

e-learning resources:

<http://nptel.ac.in/courses.php>

<http://jntuk-coeerd.in/>