

B.Sc. II-Year, IV-Semester (CBCS) Data Science Syllabus
SEC-2 Paper (Theory): Information Technologies
[2 HPW :: 2 Credits :: 50 Marks (External:40, Internal:10)]

Course Objectives & Outcomes:

1. Able to know the basic concepts on computer networks, basics of Email, computer security, Internet browsing.

UNIT – I

Computer Networks: Introduction, Connection Media, Data Transmission Mode, Data Multiplexing, Data Switching, Network Topologies, Types of Networks, Networking Devices, OSI Model.

Internet: Internet Services, Types of Internet Connections, Internet Security. Introduction to Emerging Computer Technologies: Distributed Networking, Peer-to-peer Computing, Grid Computing, Cloud Computing, Utility Computing, On-demand Computing, Wireless Network, Bluetooth, Artificial Intelligence.

UNIT – II

Basics of Email: Email, Functions of Email, Browser, Web Browser, Internet Service Providers. Introduction to Information Security – Need for Information Security, Threats to Information Systems, Information Assurance, Cyber Security.

Security: Introduction to Application Security and Counter Measures – Introduction to Application Security, Data Security Considerations, Security Technologies, Security Threats, Security Threats to E-Commerce, E-Cash and Electronic Payment System.

References:

1. Surya Prakash T, Ritendra G, Praveen Kumar S.: Introduction to Information Security and Cyber Laws, Dream tech Publications.