

**SARDAR PATEL UNIVERSITY**  
**Vallabh Vidyanagar**  
**B. B. A. Information Technology Management Program**  
**Semester - IV**  
**UM04DBBI25 Information Security**  
**(w.e.f November 2019)**

**Total Credits : 3**  
**Total Marks : 100**

**THEORY: 3 Hrs per week**

**UNIT–1 Information Security Basics 25%**  
Security Administration: Concepts and principles, Security Equation, System Life Cycle, Security development life cycle, Policies and practices, Why control access?, Authentication, Auditing. Monitoring

**UNIT–2 Attacks 25%**  
DoS, Malicious Code Attacks, Password Attacks, Software Exploitation and Buffer Overflows, Spoofing, TCP/IP Hijacking, Remote Access Security, Email Security, Wireless Security, Web Security.

**UNIT–3 Security 25%**  
**Device based Security** (Firewall (Packet. Filter, Application layer), Routers, Switches, Wireless, Workstation, Server), **Media based Security** (COAX (thin / thick), UTP / STP, Fiber optic, Magnetic tapes, CDR, Hard drives, FDD) **Security Topologies** (Security zones: DMZ, Intranet, Extranet)  
**Intrusion Detection:** Network, Host, Application based

**UNIT–4 Cryptography 25%**  
Introduction, Conventional Encryption Principles, Basic terms: (Plaintext, Cipher Text, Cryptography, Cryptanalysis), Substitution Ciphers vs. Transposition Ciphers, Introduction to Public Key Cryptography, Private Key Cryptography

**Evaluation:**

Internal - 40 Marks

External - 60 Marks - Two Hours Examination

**References Books:**

1. **Michael Cross, Norris L Johnson**, "Security+ Study Guide", Syngress Books
2. **Debra S Isaac, Michael J Isaac**, The SSCP Prep Guide, Wiley Publications
3. **Ronald L Krutz , Russell Dean Vines**, The CISM Prep Guide – Mastering the five domains of Information security management, Wiley Publications
4. **Ed Tittel , Mike Chapple, James Micheal Stewart**, CISSP - Certified Information Systems Security Professional Study Guide, SYBEX, 3<sup>rd</sup>. Ed.
5. **Ronald L Krutz , Russell Dean Vines**, Security + Prep Guide, Wiley Publications
6. **Ronald L Krutz , Russell Dean Vines**, The CISSP prep guide Gold Edition, Wiley publications
7. **Andrew S Tannenbaum**: Computer Networks, 3rd Ed., Pearson-Prentice Hall
8. **B. A. Forouzan**: Data Communications and Networking 2nd Ed., TMH