

Institute of Science and Technology
Bachelor of Science in Computer Science & Information Technology
Model Question

Course Title: Network Security
Full Marks: 60
Course Code: CSC416

Time: 3 hours
Pass Marks: 24
Semester: VII

Group 'A'

Attempt any TWO Questions. (2 × 10 = 20)

1. What is security association in IPSEC? Describe how Encapsulating security payload protocol provides confidentiality and authentication in IPSEC. [3+7]
2. Differentiate TLS session from TLS connection. How TLS Record Protocol guarantees confidentiality and message integrity? Discuss its operations. [3+7]
3. Discuss the security threats that might occur in wireless networks. Describe the IEEE 802.11i phases of operation. [4+6]

Group 'B'

Attempt any EIGHT Questions. (8 × 5 = 40)

4. What is network security? How it differs from computer and information security?[2+3]
5. How remote user authentication is done using symmetric encryption? [5]
6. What is port forwarding? How SSH provides local forwarding and remote forwarding?[1+4]
7. How device security, client/server traffic security, and barrier security sets mobile device security strategy? [5]
8. What is DNS Security Extensions (DNSSEC)? How DNSSEC is designed to protect DNS clients from accepting forged or altered DNS resource records? [1+4]
9. Describe the four principal services provided by S/MIME. [5]
10. What is intrusion? Discuss different approaches of intrusion detection. [1+4]
11. What is the difference between transport mode and tunnel mode in IPSEC? [5]
12. Describe the services provided by a service provider under cloud security as a service.[5]