



R18 Regulation

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A' Grade)

Subject code: 2E7EB

B.Tech VII Semester Regular/Supplementary Examinations, November 2022

NETWORK SECURITY

(Professional Elective)

(Computer Science and Engineering)

Maximum Marks: 70

Date: 01.12.2022 Duration: 3 hours

- Note:
1. This question paper contains two parts A and B.
 2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
 3. Part B consists of 5 Units. Answer any one full question from each unit which carries 10M.
 4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks

(10x2M=20 Marks)

- 1 Write the functions of HTTP protocol.
- 2 In SSL and TLS, why is there a separate change cipher spec protocol, rather than including change cipher spec message in the handshake protocol?
- 3 Define an extended service set.
- 4 What is the basic building block of an 802.11 WLAN?
- 5 What are two common techniques used to protect a password file?
- 6 What is the role of compression in the operation of a virus?
- 7 List three design goals for a firewall.
- 8 Why is it useful to have host-based firewalls?
- 9 Draw the SNMP architecture.
- 10 Give the SNMPv3 Applications.

Part-B

Answer All the following questions.

(5X10M=50Marks)

- 11 A. List and briefly define the parameters that define an SSL session connection. 5M
B. Explain SSL Record protocol in detail. 5M
OR
- 12 A. List and briefly define the SSH protocols. 5M
B. Discuss Connection Initiation and Connection Closure in HTTPS. 5M
OR
- 13 A. Briefly describe the four IEEE 802.11i phases of operation. 5M
B. What is the difference between an HTML filter and a WAP proxy? 5M
OR
- 14 A. List and briefly define the security services provided by WTLS 5M
B. Describe three alternative approaches to providing WAP end-to-end security. 5M
OR
- 15 A. What metrics are useful for profile-based intrusion detection? 5M
B. List and briefly define four techniques used to avoid guessable passwords. 5M
OR

- 16 A. How does behavior-blocking software work? 5M
B. Describe some worm countermeasures. 5M
- 17 A. List four techniques used by firewalls to control access and enforce a security policy. 5M
B. What is the difference between a packet filtering firewall and a stateful inspection firewall? 5M
- OR
- 18 A. What are the common characteristics of a bastion host? 5M
B. What is the difference between an internal and an external firewall? 5M
- 19 A. Describe SNMP Protocol Specifications in detail. 5M
B. Write short notes on Intellectual Property. 5M
- OR
- 20 A. Explain SNMPv3 architecture and Management Information Base. 5M
B. Briefly explains Ethical Issues. 5M