206

October 2023

Time – Three hours
(Maximum Marks: 100)

[N.B.   1.   Answer all questions under Part-A. Each question carries 3 marks.

2.   Answer all the questions either (A) or (B) in Part-B. Each question carries 14 marks.]

PART – A

1.   List the components of data communication.

2.   What are the three criterias necessary for an effective and efficient network?

3.   Define Protocol. What are the key elements of Protocol?

4.   List types of Ethernet.

5.   Define IGP. What are its types?

6.   What is HTTP? What are the two kinds of requests supported by HTTP?

7.   Differentiate between Active attacks and Passive Attacks.

8.   What is DDoS attack? How will you identify it?

9.   What are the three classes of Intruders? Name them.

10.   Write notes on firewalls.

[Turn over.....

PART – B

11. (a) What is network topology? Explain the different network topologies with its advantages and disadvantages.

(Or)

(b) Write down the characteristics of transmission media. Explain time synchronization in computer networks.

12. (a) Explain the types of switching.

(Or)

(b) Draw the layered architecture of the OSI model. Explain each layers.

13. (a) (i) Explain about ICMP.(7)
    (ii) Explain about fault detection and isolation.(7)

(Or)

(b) Explain with neat sketches, any two transport layer protocol of TCP/IP.

14. (a) (i) What is network security? Explain the principles of network security.(7)
    (ii) What is attack? Explain the different types of attack.(7)

(Or)

(b) Explain DES algorithm.

15. (a) Describe the hacking techniques.

(Or)

(b) Explain about (i) IPSec (7)   (ii) IPS gateways (7)