

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/  
COMMERCIAL PRACTICE, APRIL- 2023**

**COMPUTER NETWORKS**

[Maximum marks: 100]

(Time: 3 Hours)

**PART – A**

**Maximum marks : 10**

I (Answer *all* the questions in one or two sentences. Each question carries 2 marks)

1. Process to process delivery is the responsibility of which layer in the TCP/IP Protocol suite.
2. How can you distinguish a unicast address from a multicast address in Ethernet physical addressing scheme.
3. What is flooding?
4. What is TELNET?
5. Define the term Piggy backing.

(5 x 2 = 10)

**PART – B**

**Maximum marks : 30**

II (Answer any *five* of the following questions. Each question carries 6 marks)

1. Explain hidden station problem. How it is avoided?
2. Explain any two security issues of IPV4 datagram.
3. What is SYN Flooding attack.
4. Describe MIME.
5. Explain Bus Topology and Star Topology give advantages and disadvantages.
6. Explain subnetting and supernetting.
7. (a) Explain name space how its categorised. (b) What is FQDN?

(5 x 6 = 30)

**PART – C**

**Maximum marks : 60**

(Answer one full question from each unit. Each full question carries 15 marks)

**UNIT –I**

III. (a) Explain about categories of standard Ethernet implementations and type of cable used in each.

(10)

(b) How do the layers of the TCP/IP model correlate to the layers of ISO-OSI model? (5)

**OR**

IV.(a) Explain Wi-fi architecture. (8)

(b) What characteristics can be used as a basis for membership in a VLAN? (7)

### **UNIT-II**

V. (a) Differentiate Class full addressing and class less addressing. (10)

(b) Explain delays involved in a network. (5)

**OR**

VI. (a) Explain Link state routing. (10)

(b) Why error control and flow control are not implemented at the network layer of TCP/IP. (5)

### **UNIT-III**

VII.(a) Explain stop-and-wait protocol. (9)

(b) Explain any six services provided by TCP. (6)

**OR**

VIII.(a) Explain applications of UDP. (6)

(b) Explain SCTP services. (9)

### **UNIT-IV**

IX. (a) Explain URL and its identifiers. (5)

(b) Write short notes on Dynamic DNS. (5)

(c) Write short notes on SMTP. (5)

**OR**

X. (a) Write short notes on FTP. (5)

(b) Explain functions of message transfer agent and message access agent. (5)

(c) What are the advantages of IMAP4 over POP3? (5)

\*\*\*\*\*