EVEN 2024-25 **CO23107**

GOVERNMENT POLYTECHNIC MUMBAI
TERM END EXAMINATION

112/35

Programme : CO/IF (Sandwich Pattern)
Course Title : Computer Networks

2:30 Hours / 60 marks Enrolment No. F 0 2 4 I F 0 0 1

Instructions:
1. Attempt all the questions.
2. Illustrate your answers with neat sketches wherever necessary.
3. Use of Mathematical Tables, Steam Table and Pocket Calculator (non-programmable) is permissible.
4. Marks on Right Hand Side indicate full marks for the question.
5. Assume suitable additional data, if necessary
6. CO=COURSE OUTCOMES, L=LEVELS

Q.1 Attempt any SIX **12 Marks**

a. Define Protocol and Standards. **[CO-1, L-R]**
b. State the functions of Bluetooth and Wifi Direct. **[CO-2, L-R]**
c. Name the extensions of IEEE 802.11 Wireless LAN **[CO-2, L-R]**
d. Give the address range for each class in classfull addressing. **[CO-3, L-R]**
e. Draw IPv4 datagram format. **[CO-3, L-R]**
f. Draw UDP datagram format. **[CO-4, L-R]**
g. State the concept of web client browser & web server. **[CO-5, L-R]**
h. Give the names of the protocols used before DHCP. **[CO-5, L-R]**
i. Name the types of firewall. **[CO-5, L-R]**

Q.2 Attempt any THREE **12 Marks**

a. Describe the layers of the TCP/IP Protocol suite with suitable diagram. **[CO-1, L-U]**
b. Describe the following: i) VPN ii) NAT **[CO3-, L-U]**
c. State the functions of Certificate Issuing Authorities. **[CO-5, L-U]**
d. Write the steps for remote login using TELNET and SSH. **[CO-5, L-A]**

Q. 3 Attempt any THREE **12 Marks**

a. Describe the following :
i) Standard Ethernet. ii) Fast Ethernet iii) Gigabit Ethernet.
iv) Ten – gigabit Ethernet. **[CO-2, L-U]**
b. Describe IPv6 Addressing notation. **[CO-3, L-U]**
c. Explain File Transfer protocol. **[CO-5, L-A]**
d. Explain i) DNS, ii) Domain iii) General Domain iv) Country Domain. **[CO-5, L-A]**

Q. 4 Attempt any FOUR **12 Marks**

a. Define the following:
i) Physical Address ii) Logical Address iii) Port Address. **[CO-1, L-R]**

b. Describe Ethernet Frame format. **[CO-2, L-R]**

c. Differentiate between inter and intra domain routing. **[CO-3, L-U]**

d. Describe Flow control, Error control and Congestion control with respect to TCP. **[CO-4, L-U]**

e. Describe versions of HTTP. **[CO-5, L-R]**

Q. 5 Attempt any TWO **12 Marks**

a. State whether the following IPv4 addresses are valid or not. Justify your answer. Find the class of all valid addresses without converting into any other notations.
i) 111.56.045.78
ii) 75.45.301.14
iii) 11000001.10000011.00011011.11111111
iv) 00000001.00001011.00001011.11111111
v) 193.14.56.22
vi) 134.11.78.56 **[CO-3, L-A]**

b. Differentiate between TCP and UDP. **[CO-4, L-A]**

c. Differentiate between Client – server Paradigm and Peer – to – Peer Paradigm. **[CO-5, L-A]**

****End****