Reg. No. :

Question Paper Code : 52456

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2017
Sixth/Seventh Semester
Electronics and Communication Engineering
EC 2352 – COMPUTER NETWORKS
(Common to Biomedical Engineering)
(Regulations 2008)
(Also Common to PTEC 2352 – Computer Networks for B.E. (Part-Time)
Fifth Semester – ECE – Regulations 2009)

Time : Three Hours   Maximum : 100 Marks

Answer ALL Questions

PART – A   (10×2=20 Marks)

1. Define simplex, half-duplex and full duplex communication. Give example.

2. List the three phases of circuit switched communication.

3. What is flow control and why it is required in network communication ?

4. Define virtual LANs.

5. Mention the significance of IPV6.

6. Define unicast and broadcast.

7. State the key difference between UDP and TCP.

8. Define QoS. List the parameters used to measure QoS.

9. What is a domain name system ?

10. Differentiate between HTTP 1.0 and HTTP 2.0.

PART – B   (5×16=80 Marks)

11. a) i) Outline with a diagram and example, a simplified data communications
            model.   (6)

        ii) Explain with a diagram the layers in the ISO / OSI protocol architecture.   (10)

                        (OR)

b) i) Differentiate between guided transmission media and unguided transmission media. Give examples. **(4)**

ii) What are the major components of an optical communication system? Discuss. **(6)**

iii) Explain packet switching with an example. **(6)**

12. a) i) Outline how the data link layer detects error. **(4)**

ii) Appraise the working of stop and wait data link layer protocol. **(4)**

iii) Explain the working of CSMA/CD protocol. **(8)**

(OR)

b) Outline the design goal of Asynchronous Transfer Mode (ATM) and explain the ATM protocol architecture with a neat diagram. **(16)**

13. a) What is address resolution protocol? Outline the four cases using address resolution protocol with diagram. **(16)**

(OR)

b) i) What is DHCP? How does DHCP work? **(6)**

ii) Where is a routing table maintained? Draw the structure of a routing table. **(4)**

iii) Illustrate with a diagram unicast routing and multicast routing. **(6)**

14. a) Explain with a diagram how TCP keeps track of all the different events happening during connection establishment, connection termination and data transfer. **(16)**

(OR)

b) i) Identify the source port number and the destination port number of the following dump of the UDP header in hexadecimal format:
CB84000D001C001C **(4)**

ii) Explain with diagram encapsulation and decapsulation in UDP. **(12)**

15. a) i) Outline the hierarchy of domain name system. **(6)**

ii) Explain with a diagram the working of simple mail transfer protocol. **(10)**

(OR)

b) What is digital signature? Explain with a diagram the process of creating and verifying a digital signature in source and destination hosts? **(16)**