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Reg. No. :

Question Paper Code: 55404

.B.E./B.Tech. DEGREE EXAMINATION, NOV 2019

Fifth Semester

Electronics and Communication Engineering

15UEC504- DATA COMMUNICATION AND NETWORKS

(Regulation 2015)

Duration: Three Hours   Maximum: 100 Marks

Answer ALL Questions

PART - A   (5 x 1 = 5 Marks)

1. The Medium Access Control sub layer resides in _____ Layer   CO1-R

   (a) Transport   (b) Network   (c) Physical   (d) Data link

2. _____ Control refers to a set of procedures used to restrict the amount of   CO2-U
   data that the sender can send before waiting for acknowledgment

   (a) Flow Control   (b) Error   (c) Transmission   (d) None of the above

3. DHCP (dynamic host configuration protocol) provides _____ to the client   CO3-U

   (a) IP Address   (b) MAC Address   (c) URL   l) None of the above

4. A _____ is a TCP name for a transport service access point.   CO4-R

   (a) Port   (b) Pipe   (c) Node   (d) None of the above

5. In file transfer protocol, data transfer can be done in _____   CO5-R

   (a) Stream Mode   (b) Block Mode   (c) Compressed Mode   (d) All of the above

PART - B   (5 x 3 = 15 Marks)

6. Contrast circuit switching and packet switching.   CO1- Ana

7. Outline the importance of ARQ with respect to error control?   CO2-U

8. Enumerate the advantages of IPV6 over IPV4?   CO3-U

9. List the various congestion control mechanism   CO4-R

10. Justify your answer with respect to persistent HTTP?   CO5-R

2

55404

PART -C (5 x 16 = 80 Marks)

11. (a) Draw the OSI network architecture and explain the functionalities of each layer in detail.   CO1-U   (16)

Or

(b) (i) Explain the Frequency Division Multiplexing technique in detail.   CO1-U   (8)

(ii) Demonstrate and explain in detail about the features of transmission media.   CO1-U   (8)

12. (a) Discuss in detail about the flow control mechanisms with suitable illustration.   CO2-U   (16)

Or

(b) Write Short notes on   CO2-U   (8)

(i) Wireless LAN

(ii) Wired LAN   CO2-U   (8)

13. (a) Describe in details the working principle of Dynamic Host Control Protocol.   CO3-U   (16)

Or

(b) Outline the features of ICMP and Contrast with IGMP.   CO3-U   (16)

14. (a) How is congestion controlled? Explain in detail about congestion controlled technique in detail.   CO4-U   (16)

Or

(b) Explain the scheduling technique to improve the QoS.   CO4-U   (16)

15. (a) (i) Demonstrate the functionality of SNMP.   CO5-U   (8)

(ii) Discuss in detail, File Transfer an application layer protocol.   CO5-U   (8)

Or

(b) Illustrate the performance of RSA Algorithm with prime numbers 7 and 11 respectively.   CO5-U   (16)

55404