C

Reg. No. :

Question Paper Code: 54204

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

Fourth Semester

Computer Science and Engineering

15UCS404- COMPUTER COMMUNICATION AND NETWORKS

(Regulation 2015)

Duration: Three hours   Maximum: 100 Marks

Answer ALL Questions

PART A – (5 x 1 = 5 Marks)

1. For real time multimedia, file transfer, DNS and email, the transport layer protocols used are respectively   CO1-R

    (a) TCP, UDP, TCP and UDP   (b) UDP, UDP, TCP and TCP

    (c) UDP, TCP, UDP and TCP   (d) TCP, TCP, UDP and UDP

\2. Ethernet = 10Mbps, Jamming signal = 48bit, Round trip propagation delay = 46.4μs, minimum frame size =?   CO2-U

    (a) 512   (b) 440   (c) 100   (d) 1024

3. In an IP datagram one of the header fields is time to live (TTL) field because   CO3-U

    (a) It can be used to prevent packet looping

    (b) It can be used to optimize throughput

    (c) It can be used to reduce delays

    (d) It can be used to prioritize packets

4. The network layer concerns with   CO4-R

    (a) Bits   (b) Frames   (c) Packets   (d) Datagrams

5. For the application layer in the Internet stack, the protocol data unit (PDU) is   CO5-R

    (a) Datagram   (b) Message   (c) Frame   (d) Segment

PART – B (5 x 3= 15Marks)

6.	Define : Bandwith and Latency	CO1-U
7.	Draw Ethernet frame format	CO2-R
8.	How router differ from bridge?	CO3-U
9.	Compare Circuit switching with packet switching	CO4-U
10.	Write the use of HTTP.	CO5-U

PART – C (5 x 16= 80Marks)

11. (a) List the layers of OSI model and elaborate the functionalities of each layer   CO1-R   (16)

Or

   (b) With neat diagram explain the TCP/IP Protocol suite   CO1-R   (16)

12. (a) What is the need for error detection? Explain the methods used for error detection with typical example.   CO2-U   (16)

Or

   (b) Explain the working of CSMA/CD along with the physical properties and coding methods on Ethernet   CO2-U   (16)

13. (a) Explain any four connecting devices in detail.   CO3-R   (16)

Or

   (b) Explain the architecture of ATM along with its design goals and problems faced   CO3-U   (16)

14. (a) Explain in detail   CO4-U   (16)
       (i) ICMP
       (ii) IGMP

Or

   (b) Explain about IPv6? Interpret the Header format of the same and Compare the versions of IPv4 and IPv6.   CO4-U   (16)

15. (a) Define Congestion control. Describe in detail about the congestion control techniques of TCP in detail.   CO5-U   (16)

Or

   (b) What is Domain Name System (DNS)? Describe the hierarchical tree structure of the same.   CO5-U   (16)

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