Reg. No. : | | | | | | | | | | |

Question Paper Code: 45402

B.E. / B.Tech. DEGREE EXAMINATION, DEC 2020

Fifth Semester

Electronics and Communication Engineering

14UEC502 - DATA COMMUNICATION AND NETWORKS

(Regulation 2014)

Duration: One hour Maximum: 30 Marks

PART A - (6 x 1 = 6 Marks)

(Answer any six of the following questions)

1. The _____ layer changes bits into electromagnetic signals.

   (a) Physical (b) Transport
   (c) Data link (d) None of the above

2. The highest data rate is provided by which of the following medium.

   (a) Coaxial cable (b) Optical fiber
   (c) Microwave (d) Laser beam

3. Data link control deals with the design and procedures for _____ communication.

   (a) node-to-node (b) host-to-host
   (c) process-to-process (d) server-to-server

4. For wireless network, _____ was invented

   (a) CSMA/CD (b) CSMA (c) CSMA/CA (d) ALOHA

5. Header of datagram in IPv4 has _____.

   (a) 0 to 20 bytes (b) 20 to 40 bytes
   (c) 20 to 60 bytes (d) 20 to 80 bytes

6. The Routing Information Protocol (RIP) is an intra domain routing based on _____ routing.

(a) distance vector (b) link state (c) path vector (d) none of these

7. _____ is a class-based QoS model designed for IP.

(a) Integrated Services (b) Differentiated Services
(c) Connectionless (d) Connection-Oriented

8. Which of t he following services use TCP?

(a) DHCP (b) SMTP (c) FTP (d) TFTP

9. _____ is a language for creating Web pages.

(a) HTTP (b) HTML (c) FTTP (d) none of these

10. Which configuration is not supported in AES?

(a) 10 rounds with a key size of 128 bits
(b) 12 rounds with a key size of 192 bits
(c) 16 rounds with a key size of 228 bits
(d) 14 rounds with a key size of 256 bits

PART – B (3 x 8= 24 Marks)

(Answer any three of the following questions)

11. How are the layers abstracted in OSI model? Explain their functions. (8)

12. Given the data word as 1010101010 and the divisor 10111. Show the generation of the code word at the sender site. Show the checking of the code word at the receiver site. (8)

13. Briefly define sub-netting and super-netting. How do the subnet mask and supernet mask differ from a default mask in class-full addressing? (8)

14. If an application needs to protect the boundaries of the message to be transmitted, which protocol should be used? Explain the choice of protocol with justification. (8)

15. What are the main categories of DNS messages? Explain. (8)