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**Question Paper Code: 55404**

B.E./B.Tech. DEGREE EXAMINATION, NOV 2018

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. Which data communication method is used to send data over a serial communication link? CO1- R  
(a) Simplex                      (b) Half Duplex                      (c) Full Duplex                      (d) All of these
2. The Stop-And-Wait ARQ, Go-Back-N ARQ and Selective Repeat ARQ are for \_\_\_\_\_. CO2- R  
(a) Noiseless Channel    (b) Noisy Channel                      (c) Either (a) or (b)                      (d) Neither (a) or (b)
3. In IPv6, the group of computer is defined by \_\_\_\_\_. CO3-R  
(a) Unicast                      (b) Both Unicast & Multicast                      (c) Multicast                      (d) None of these
4. Any system that involves waiting leads to \_\_\_\_\_. CO4- R  
(a) Congestion                      (b) Jamming                      (c) Slow-start                      (d) Error
5. The documents in the WWW can be grouped into \_\_\_\_\_ broad categories. CO5- R  
(a) Three                      (b) Four                      (c) Five                      (d) Two

PART – B (5 x 3= 15 Marks)

6. Define the following terms. CO1- R
- (a) Protocol
  - (b) Network
  - (c) Hub
7. What do you mean by Piggybacking? CO2- U
8. Differentiate between IPv4Address and IPv6 Address. CO3- U
9. Sketch the TCP Segment format. CO4- R
10. Use the shift Cipher with key =7 to decrypt the message “OLSSV TF KLHY”. CO5- App

PART – C (5 x 16= 80Marks)

11. (a) Describe in detail about the OSI Model. CO1- U (16)
- Or
- (b) (i) Describe in detail about the various network topologies. CO1- U (12)
- (ii) Explain in brief about the TCP/IP model. CO1- U (4)
12. (a) Discuss in brief about the architecture of Wireless LANs. CO2- U (16)
- Or
- (b) With neat Sketch, describe in detail about Ethernet. CO2- U (16)
13. (a) Summarize in brief about ICMP, ARP, RARP, and IGMP. CO3- U (16)
- Or
- (b) Explain in detail about distance Vector Routing. CO3- U (16)
14. (a) Discuss in detail about congestion control. CO4- U (16)
- Or
- (b) Explain in detail about TCP. CO4- U (16)
15. (a) Explain in detail about Electronic Mail & HTTP. CO5- U (16)
- Or
- (b) Explain in detail about FTP and Domain Name Space. CO5- U (16)