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**Question Paper Code: 55404**

B.E./B.Tech. DEGREE EXAMINATION, APRIL 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)

- Which layer is responsible for process to process delivery? CO1- R  
(a) Network layer      (b) Data link layer      (c) Transport layer      (d) Session layer
- 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)
- The header length of an IPv6 datagram is \_\_\_\_\_. CO3- R  
(a) Unicast      (b) Both Unicast & Multicast      (c) Multicast      (d) None of these
- Any system that involves waiting leads to \_\_\_\_\_. CO4- R  
(a) 10bytes      (b) 25bytes      (c) 30bytes      (d) 40bytes
- The file transfer protocol is built on \_\_\_\_\_ CO5- R  
(a) Data centric architecture      (b) Service oriented architecture  
(c) Client server architecture      (d) none of the mentioned

PART – B (5 x 3= 15 Marks)

- Distinguish between ADSL and SDSL. CO1- R
- Define flow control and error control. CO2- U
- Differentiate between IPv4 Address and IPv6 Address. CO3- U
- What are the types of QoS? CO4- R
- What are the transmission modes of FTP? CO5- App

PART – C (5 x 16= 80Marks)

11. (a) Explain in detail various guided transmission media 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) Explain the operation of sliding window protocol with neat diagram. CO2- U (16)
- Or
- (b) With neat Sketch, describe in detail about Ethernet. CO2- U (16)
13. (a) Write short notes on following terms. CO3- U (16)
- (i) ICMP
- (ii) RARP
- Or
- (b) Explain in detail about link state routing.. CO3- U (16)
14. (a) Draw and explain the structure of TCP segment. CO4- U (16)
- Or
- (b) (i) Define QoS. Elaborate the characteristics of QoS. CO4- U (8)
- (ii) Explain in detail about congestion control CO4- U (8)
15. (a) Explain in detail about Electronic Mail & HTTP. CO5- U (16)
- Or
- (b) Explain in detail about symmetric-key cryptography with neat sketch. CO5- U (16)