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**Question Paper Code: 35802**

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

Fifth Semester

Information Technology

01UIT502 – COMPUTER NETWORKS

(Common to Computer Science and Engineering)

(Regulation 2013)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 2 = 20 Marks)

1. Define line configuration and give its types.
2. Define flow control. Mention the categories of it.
3. Describe about MAC.
4. List the advantages of FDDI over a basic Token Ring.
5. What is meant by packet switching?
6. Mention the uses of ARP and RARP protocols.
7. Why “A priority queue can provide better QoS than the FIFO queue”?
8. What is adaptive retransmission?
9. Mention the aspects of security.
10. What are the basic functions of email system?

PART - B (5 x 16 = 80 Marks)

11. (a) Draw the OSI Network architecture and explain the functionalities of each layer in detail. (16)

Or

- (a) Explain in detail about the network architecture with a neat diagram. (16)

12. (a) (i) Explain in detail CSMA technique and the three persistent methods. (8)  
(ii) Summarize the categories of standard Ethernet. (8)

Or

- (b) (i) Explain in detail the architecture and addressing mechanism of IEEE 802.11. (8)  
(ii) Illustrate how RTS/CTS signals can be used to overcome the hidden terminal problem. (8)

13. (a) Demonstrate the class full IP address with its types and example. (16)

Or

- (b) Explain distance vector routing and link state routing. (16)

14. (a) Draw and explain in detail about TCP state transition diagram. (16)

Or

- (b) Why does congestion occur in a network? Explain in detail about one congestion control technique. (16)

15. (a) Explain the role of a DNS on a computer network, including its involvement in the process of a user accessing a web page. (16)

Or

- (b) Explain in detail about RSA algorithm with suitable example. (16)

