

B.E./B.TECH. Degree Examination, December 2020

Semester - VI

CS16401-COMPUTER NETWORKS

(Regulation 2016)

Time: Three hours

Maximum : 80 Marks

Answer **ALL** questions**PART A - (8 X 2 = 16 marks)**

1. Fire alarms are based on this type of transmission:
a) direct b) network c) analog d) multiple
2. The mode of a MAC to share a transmission medium are _____.
a)Round Robin b) Reservation c)Contention d) All the above
3. In _____ routing, the mask and the destination address are both 0.0.0.0 in routing table.
a) next-hop b) host-specific c) network-specific d) default.
4. Socket-style API for windows is called _____.
a) wsock b) winsock c) wins d) sockwi
5. Group the OSI layers by function.
6. How is the minimum size of an Ethernet frame determined?
7. Identify the class and default subnet mask of the IP address 217.65.10.7.
8. What are the fields on which the UDP checksum is calculated? Why?

PART B - (4 X16 = 64 marks)

09. (a) Illustrate the process of building a computer network. (16)

(OR)

- (b) With relevant diagram distinguish between the functions of physical, data link, Network and Transport layer. (16)

10. (a) Discuss the problems encountered in applying CSMA/CD algorithm to wireless LAN's. How does 802.11 specification solve these problems. (16)

(OR)

- (b) (i) Identify the physical properties and medium access protocol of IEEE 802.3. (10)
- (ii) Illustrate the working principles of Bluetooth technology with example. (6)

11. (a) With an example network scenario explain the mechanism of Routing Information Protocol and specify the routing table contents. (16)

(OR)

- (b) Discuss the fundamentals and advantages of open shortest path first protocol. (16)

12. (a) Discuss the random early deduction mechanism and derive the expression for drop probability. (16)

(OR)

- (b) (i) Explain how the reliable and sequential delivery of data frames are achieved through Go-Back-N protocol. (8)
- (ii) With a diagram discuss about TCP connection management. (8)