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Total No. of Questions : 09] [Total No. of Pages : 02

B.Tech (Sem. - 7th/8th)
COMPUTER NETWORKS
SUBJECT CODE : CS - 402
Paper ID : [A0328]

[Note : Please fill subject code and paper ID on OMR]

Time : 03 Hours **Maximum Marks : 60**

Instruction to Candidates:

1) Section - A is **Compulsory**.
2) Attempt any **Four** questions from Section - B.
3) Attempt any **Two** questions from Section - C.

Section - A

Q1) *(10 × 2 = 20)*

a) What is the need of protocols in computer network?

b) List out the disadvantages of optical fiber.

c) Describe the need and use of Bus topology.

d) How does a single bit error differ from a burst error?

e) Specify the different kinds of Ethernet networks.

f) Define IP address and subnetting.

g) What is the function of ARP protocol?

h) Distinguish between TCP and UDP.

i) Distinguish b/w Telnet and FTP.

j) Describe the need and use of sockets.

Section - B

(4 × 5 = 20)

Q2) For n devices in a network, what is the number of cable links required for mesh, ring and star topology.

Q3) Differentiate b/w circuit switching, packet switching and Message Switching.

Q4) Differentiate b/w hubs, switches and bridges.

Q5) Discuss in detail about FDDI.

Q6) Given a IP address of 193.215.45.198 and a subnet mask of 255.255.255.240. What is the Network number? What is the broadcast address? How many hosts addresses?

Section - C

(2× 10 = 20)

Q7) Explain the OSI reference model in detail.

Q8) Discuss the following :

(a) Stop and wait protocol.

(b) Sliding window protocol with go back n.

Q9) Explain with an example how Hamming code can be used to correct single bit errors. How the Hamming code can be used for burst error correction?

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