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BCA (Sem. - 4th)

COMPUTER NETWORKS

SUBJECT CODE : BC - 401

Paper ID : [B0215]

[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.

Section - A

(10 × 2 = 20)

Q1)

a) What is the role of Concentrators in a network.

b) What is a passive and active HUB.

c) What is a wireless network.

d) What is the role of Gateways in a network.

e) Describe a way to do reassembly of IP fragments at the destination.

f) What is HTTP protocol.

g) What is a star network.

h) Give example of protocol parameters that might be negotiated when a connection is set up.

i) What is IPv6.

j) What is the difference between LAN and WAN.

Section - B

(4 × 10 = 40)

Q2) With reference to OSI reference model, point out which layer/layers carry the following functions :

(a) Text/data compression.

(b) Virtual terminal management.

(c) Connection management.

(d) Error free data transmission.

(e) Deadlock control.

Q3) (a) What is the difference between band width, baud rate and channel capacity?

(b) What is the difference between a confirmed service and unconfirmed service? For each of the following discuss whether it might be a confirmed service and unconfirmed service, both or neither :

(i) Connection establishment.

(ii) Data transmission.

(iii) Connection release.

Q4) Explain the TCP/IP reference model for the design of a network.

Q5) Explain the following :

(a) Shortest path Routing algorithm.

(b) Centralised routing algorithm.

Q6) What are the various type of switching use in transmission of data in networking. Explain .

Q7) A good number of voice signals are transmitted as digital bit streams over a digital channel. Explain a suitable scheme for transmission.

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