M. C. A. (Sem. II) (CBCS) Examination

April / May - 2017

P-2020 : Computer Network

Faculty Code : 003

Subject Code : 1072002

Time :   Hours]   [Total Marks : **70**

1   (a)   Answer the following   **4**

(1)   Give full form of WAN.

(2)   Give full form of LAN.

(3)   Attenuation refers to any reduction in the strength of a signal.
True or False?

(4)   Bandwidth describes the maximum data transfer rate of a network or Internet connection.
True or False?

(b)   Answer any one in brief :   **2**

(1)   Define Network.

(2)   What is throughput?

(c)   Answer any one in detail :   **3**

(1)   Explain analog and digital signals.

(2)   Explain LAN and WAN.

(d)   Answer any **one** :   **5**

(1)   Explain Client-server and Peer to Peer Network.

(2)   List different network services and explain any two.

2 (a) Answer the following : 4

    (1) Which layer provides the services to user?

    (2) Transmission data rate is decided by _____ layer.

    (3) The OSI model has _____ layers.

    (4) Which Layer manages device addressing, tracks the location of devices on the network, and determines the best way to move data?

    (b) Answer any one in brief : 2

    (1) What is OSI model?

    (2) What is the work of data link layer?

    (c) Answer any one in detail : 3

    (1) What is the work of network layer?

    (2) What is the work of transport layer?

    (d) Answer any one : 5

    (1) List and explain OSI reference model with all layers.

    (2) Write a note on protocol stack.

3 (a) Answer the following : 4

    (1) Give full form of TDM.

    (2) Give full form of STP.

    (3) Give full form of TDMA.

    (4) Give full form of EMI.

    (b) Answer any one in brief : 2

    (1) What is Attenuation and Electromagnetic Interference?

    (2) What is the purpose of Fibre optic cable?

(c) Answer any one in detail : 3

(1) Explain co-axial cable.

(2) Compare different wireless media.

(d) Answer any one : 5

(1) Write a note on Twisted Pair Cable.

(2) Explain Time Division Multiplexing (TDM).

4 (a) Answer the following : 4

(1) A _____ topology is one in which all devices connect to a common, shared cable.

(2) _____ is a network device that repeats a signal from one port onto the other ports to which it is connected.

(3) Give full form of CSMA / CD.

(4) In dynamic routing, the routing table entries are populated with the help of routing protocols. True or False?

(b) Answer any one in brief : 2

(1) Explain token passing.

(2) Explain use of modem.

(c) Answer any one in detail : 3

(1) Write a note on router.

(2) Explain Active Hub and Passive Hub.

(d) Answer any **one** : 5

(1) What is topology? List all the topologies and explain any one.

(2) What is routing? Explain Distance vector routing.

5 (a) Answer the following : **4**

    (1) _____ switching divides the data to be transmitted into packets transmitted through the network independently.

    (2) TCP is a connection-less protocol. True or False?

    (3) Full form of TCP.

    (4) IPV4 has _____ bits.

(b) Answer any one in brief : **2**

    (1) What is IP Datagram?

    (2) What is port? Explain in brief.

(c) Answer any one in detail : **3**

    (1) Explain the structure of IP address.

    (2) What is Socket? Explain in brief.

(d) Answer any **one** : **5**

    (1) Write a note on Message switching.

    (2) Write a note on TCP/IP.

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