

(6 pages)

Reg. No. :

Code No. : 9320

Sub. Code : HCAM 53

M.C.A. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2017.

Fifth Semester

Computer Applications

COMPUTER NETWORKS AND NETWORK
MANAGEMENT

(For those who joined in July 2012 – 2015)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. An unauthorized user is a network _____ issue
(a) Performance (b) Reliability
(c) Security (d) All the above
2. Communication between a computer and a keyboard involves _____ transmission.
(a) simplex (b) half-duplex
(c) full-duplex (d) automatic

3. packet-switched networks can also be divided into _____ subcategories: virtual-circuit networks and datagram networks
(a) four (b) Three
(c) Two (d) five
4. Circuit switching takes place at the _____ layer
(a) data line (b) physical
(c) network (d) transport
5. Field of Media Access Control frame that is used to alternate 1s and 0s is called
(a) SFD (b) Preamble
(c) Source address (d) Destination address
6. In Carrier Sense Multiple Access (CSMA), if station senses medium before trying to use it then chance of collision can be
(a) Increased (b) Reduced
(c) Highlighted (d) Decreased
7. Which one of the following routing algorithm can be used for network layer design?
(a) shortest path algorithm
(b) distance vector routing
(c) link state routing
(d) all of the mentioned

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8. Multi destination routing
(a) is same as broadcast routing
(b) contains the list of all destinations
(c) data is not sent by packets
(d) none of the mentioned
9. To use Simple Network Management System (SNMP), we need
(a) Servers (b) IP
(c) Protocols (d) Rules
10. Main difference between SNMPv3 and SNMPv2 is _____
(a) management (b) integration
(c) classification (d) enhanced security

PART B — (5 × 5 = 25 marks)

Answer ALL questions choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) What is a peer-to-peer process? Discuss.
Or
(b) What are the responsibilities of the network layer in the Internet model?

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12. (a) Compare space-division and time-division switches.

Or

- (b) Give some hierarchical switching levels of a telephone network.

13. (a) What is the role of address field in a packet traveling through a virtual-circuit network?

Or

- (b) List the functionalities of Fast Ethernet and Gigabit Ethernet.

14. (a) Compare sub netting and super netting.

Or

- (b) Briefly explain the functions of ARP.

15. (a) Give brief account on CORBA technology.

Or

- (b) How can you choose a configuration protocol in network management? Explain.

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PART C — (5 × 8 = 40 marks)

Answer ALL questions choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) List and explain the major classes of guided media.

Or

- (b) Explain the functionalities of different layers in the Internet model.

17. (a) What is DSL technology? What are the services provided by the telephone companies Using DSL? Explain in detail.

Or

- (b) With a relevant diagram explain the functionalities of data link layer protocols.

18. (a) With a neat sketch explain virtual circuit switching in detail.

Or

- (b) Elucidate the design goals and architecture of ATM.

19. (a) What is a mask in IPV4 addressing? Compare the IPV4 and IPV6 addressing with example.

Or

- (b) Explain the functionalities of any two network layer protocols.

20. (a) Enumerate the network management architecture with relevant diagrams.

Or

- (b) Describe the role and responsibilities of SNMP in network management.

