

(6 pages)

Reg. No. :

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M.C.A. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2024.

First Semester

Computer Applications

ADVANCED COMPUTER NETWORKS

(For those who joined in July 2023 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (15 × 1 = 15 marks)

Answer ALL questions.

Choose the correct answer :

1. A _____ is a data communication system within a building or campus.
(a) MAN (b) WAN
(c) LAN (d) TAN
2. 'de jure' meaning is _____.
(a) By law (b) By fact
(c) By convention (d) By True

3. The _____ is a collection of many separate networks.
(a) computer (b) internet
(c) address (d) protocol
4. In a _____ network, each packet is treated independently of all others.
(a) net switched (b) message switching
(c) datagram (d) non virtual
5. A _____ network is made of a set of switches connected by physical links, in which each link is divided into channels.
(a) Circuit switched (b) Virtual
(c) Guided (d) Unguided
6. In _____ mode, a switch can be replaced by a Hub, which acts as the common cable in which a collision might occur.
(a) Full duplex (b) Half duplex
(c) Guided duplex (d) Unguided duplex
7. The _____ helps multicast routers create and update a list of loyal members related to a router interface.
(a) IPV4 (b) IPV6
(c) ICMP (d) IGMP

8. An _____ address defines a device's connection to a network.
- (a) Protocol (b) IP
(c) Message (d) Routing
9. The class of an address is easily determined by examination of _____ byte.
- (a) Fourth (b) Third
(c) Second (d) First
10. In _____ queuing technique, packets wait in a buffer until the node is ready to process.
- (a) Priority (b) Weighted pair
(c) FIFO (d) FILO
11. A _____ or a fixed rate, traffic model has a data rate that does not change.
- (a) CBR (b) VBR
(c) Bursty (d) SBR
12. UDP is a very simple, _____ transport protocol.
- (a) connection oriented (b) unreliable
(c) reliable (d) flow control

13. _____ organizes the name space in a hierarchical structure to decentralize the responsibilities involved in naming.
- (a) DNS (b) Router
(c) Switch (d) Hub
14. The _____ is a router or host that runs the SNMP server program.
- (a) manager (b) agent
(c) client (d) user
15. A _____ fault management system is responsible for detecting, isolating, correcting and recording faults.
- (a) Reactive (b) Proactive
(c) Not active (d) Inactive

PART B — (5 × 4 = 20 marks)

Answer ALL questions, choosing either (a) or (b).
Each answer should not exceed 250 words.

16. (a) What do you mean by unguided media?
Or
(b) How to connect bus topology in computer network?

17. (a) Define the terms : Flow control and error control.

Or

(b) Write down the three types of antollitos.

18. (a) What is multicast routing?

Or

(b) Draw and describe the message format of IGMP.

19. (a) Give a brief note on closed loop congestion control.

Or

(b) Expand and give a note on TCP.

20. (a) Differentiate : Flat Namespace versus hierarchical namespace.

Or

(b) What is configuration management?

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b)
Each answer should not exceed 600 words.

21. (a) List out and describe the different types of addresses in Internet.

Or

(b) With neat diagram, articulate OSI reference model in detail.

22. (a) Expand and explain about CSMA.

Or

(b) Write down the architecture of BLUETOOTH and its layers.

23. (a) Discuss in detail about unicast routing protocols.

Or

(b) What is IPV6 Addressing? Explain its structure and address space.

24. (a) UDP is a connectionless protocol. Say True or False. Give a brief note on it.

Or

(b) Define Quality of Service. What are the techniques used to improve QoS?

25. (a) What do you mean by Namespace? How to distribute Namespace?

Or

(b) Illustrate the working principles of file transfer protocol.