

(7 pages)

Reg. No. :

Code No. : 7794

Sub. Code : WCSE 12

M.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2023.

First Semester

Computer Science

Elective I — 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. Which is the device that receives the message?

- (a) Message
- (b) Sender
- (c) Receiver
- (d) Transmission medium

2. The _____ layer coordinates the functions required to carry a bit stream over a physical medium

- (a) Network
- (b) Physical
- (c) Data Link
- (d) Session

3. A twisted pair consists of _____ conductors

- (a) Two
- (b) Three
- (c) Five
- (d) Eight

4. Which frames are used for the initial communication between stations and access points

- (a) management
- (b) control
- (c) data
- (d) all of these

5. Which satellite are positioned between the two van Allen belts?

- (a) MEO
- (b) GEO
- (c) LEO
- (d) None of these

6. Which generation of cellular telephony was mainly designed for digitized voice?

- (a) First
- (b) Second
- (c) Third
- (d) Fourth

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7. The _____ addresses are used to define a group of hosts instead of just one

- (a) Any cast (b) Reserved
- (c) Local (d) Multicast

8. Which of the messages are designed for diagnostic purpose?

- (a) Echo-request and reply
- (b) Timestamp request and reply
- (c) Address mask request and reply
- (d) None of these

9. The _____ flag means that the destination is in another network

- (a) U (b) G
- (c) M (d) H

10. The numbering system allows TCP to use a byte-oriented _____ control

- (a) Congestion (b) Error
- (c) Flow (d) Transmission

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11. Which of the following is a quality of service mechanism?

- (a) Admission policy
- (b) Window policy
- (c) Retransmission policy
- (d) Discarding policy

12. In _____ queuing, packets are still assigned to different classes and admitted to different queues

- (a) FIFO (b) Weighted fair
- (c) Priority (d) None of these

13. What is the generic domain of international organization?

- (a) Org (b) Int
- (c) Coop (d) Com

14. Which method of replying is defined as message to the sender or recipients of the copy?

- (a) Composing messages
- (b) Reading messages
- (c) Replying to messages
- (d) Forwarding messages

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[P.T.O.]



15. The _____ is a 1-byte field that defines the type of data

- (a) Length (b) Tag
(c) Sequence of (d) Sequence

PART B — (5 × 4 = 20 marks)

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

16. (a) Describe the bus topology with diagram.

Or

(b) State microwaves with diagram in brief.

17. (a) Distinguish between fixed size and variable size framing.

Or

(b) Illustrate the three categories of satellites.

18. (a) Appraise the reverse path broadcasting (RPB).

Or

(b) State the difference between Unicast and multicast routing.

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19. (a) Compare and contrast multiplexing and demultiplexing.

Or

(b) Justify the quality of service (QOS).

20. (a) Write short note on name space.

Or

(b) Validate the File Transfer Protocol (FTP)

PART C — (5 × 8 = 40 marks)

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

21. (a) Examine the OSI model and its layers with neat diagram.

Or

(b) Discuss about Twisted-pair cable in detail.

22. (a) Illustrate the circuit-switched networks.

Or

(b) Explain on blue tooth and its architecture.

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23. (a) Interpret the IPv6 addresses of network layer.

Or

- (b) Illustrate the ICMP briefly.

24. (a) Analyze the various user datagram protocol operations.

Or

- (b) Compare open and closed loop congestion control.

25. (a) Construct the E.Mail architecture with diagram.

Or

- (b) Justify on DNS in the internet.
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