

(6 pages)

Reg. No. :

Code No. : 7474

Sub. Code : ZCSM 33

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

Third Semester

Computer Science – Core

ADVANCED COMPUTER NETWORK

(For those who joined in July 2021-2022 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. Devices may be arranged in a _____ topology.
- (a) mesh
 - (b) ring
 - (c) bus
 - (d) all of the above

2. _____ is a collection of many separate networks.

- (a) WAN
- (b) Internet
- (c) LAN
- (d) None of these

3. CRC stands for _____.

- (a) cyclic redundancy check
- (b) code repeat check
- (c) code redundancy check
- (d) cyclic repeat check of the above

4. Bluetooth is an example of _____.

- (a) personal area network
- (b) local area network
- (c) virtual private network
- (d) wide area network

5. The network layer is concerned with _____ of data.

- (a) bits
- (b) frames
- (c) packets
- (d) bytes

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6. Which one of the following algorithm is not used for congestion control?

- (a) traffic aware routing
- (b) admission control
- (c) load shedding
- (d) routing information protocol

7. Which of the following are transport layer protocols used in networking?

- (a) TCP and FTP
- (b) UDP and HTTP
- (c) TCP and UDP
- (d) HTTP and FTP

8. A _____ is a TCP name for a transport service access point.

- (a) Port
- (b) pipe
- (c) node
- (d) protocol

9. Which is not a application layer protocol?

- (a) HTTP
- (b) SMTP
- (c) FTP
- (d) TCP

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10. Which of the following is not a major way of stealing email information?

- (a) Stealing cookies
- (b) Reverse Engineering
- (c) Password Phishing
- (d) Social Engineering

PART B — (5 × 5 = 25 marks)

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

Each answer should not exceed 250 words.

11. (a) List and explain the uses of computer network.

Or

(b) Classify the components of optical communication system.

12. (a) Describe the role of stop and wait protocol in data link layer.

Or

(b) Differentiate between virtual circuit and datagram network.

13. (a) Identify all the metrics used by routing protocol.

Or

(b) Illustrate the concept of leaky bucket algorithm.

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[P.T.O.]



14. (a) State the different transport service primitives.

Or

- (b) Analyze the various duties of transport layer.

15. (a) List out the limitations of simulation.

Or

- (b) How do you run on NS2 program on windows? Explain.

PART C — (5 × 8 = 40 marks)

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

Each answer should not exceed 600 words.

16. (a) Summarize the concept of guided transmission media in computer network.

Or

- (b) Explain OSI reference model of computer network with neat diagram.

17. (a) Is Bluetooth is a protocol or standard? Justify your answer.

Or

- (b) Analyze the various responsibilities of data link layer.

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18. (a) Draw and explain the IPV6 packet header.

Or

- (b) Construct the shortest path routing algorithm with neat diagram.

19. (a) Classify the various elements of transport protocols.

Or

- (b) Discuss TCP and its various operations.

20. (a) Describe the Domain Name System and its frame format.

Or

- (b) Interpret and access how SMTP protocol is used in E-Mail application.

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