

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. OSI stands for
 - (a) Open System Interconnection
 - (b) Operating System Interface
 - (c) Optical Service Implementation
 - (d) None of the mentioned

6. The signal rate is the number signal elements sent in _____ s.
 - (a) 1
 - (b) 2
 - (c) 0
 - (d) 4

7. The data link layer takes the packets from _____ and encapsulates them into frames for transmission.
 - (a) network layer
 - (b) physical layer
 - (c) transport layer
 - (d) application layer

8. Which one of the following is a data link protocol?
 - (a) ethernet
 - (b) point to point protocol
 - (c) hdlc
 - (d) all of the mentioned

9. _____ refers to the set of standards that define communication for wireless LANs.
 - (a) IEEE 802.11
 - (b) IEEE 804.11
 - (c) IEEE 806.11
 - (d) None of these

10. Which multiple access technique is used by IEEE 802.11 standard for wireless LAN?
 - (a) CDMA
 - (b) CSMA/CA
 - (c) ALOHA
 - (d) None of the mentioned

2. The _____ duplex mode, the signal is sent in both directions at the same time.
 - (a) Half
 - (b) Simple
 - (c) Full
 - (d) None of the mentioned

3. Coaxial cable has conductors with _____
 - (a) a common axis
 - (b) equal resistance
 - (c) the same diameter
 - (d) none of these

4. _____ is the number of occurrences of a repeating event per unit of time.
 - (a) Modulation
 - (b) Frequency
 - (c) Signal
 - (d) All of these

5. The resources needed for communication between end systems are reserved for the duration of the session between end systems in _____.
 - (a) Packet switching
 - (b) Circuit switching
 - (c) Line switching
 - (d) Frequency switching

PART B — (5 × 5 = 25 marks)

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

Each answer should not exceed 250 words.

11. (a) List the layers of the Internet model.
Or
(b) Why are protocols and standards needed?

12. (a) The frequency is 60Hz. Find the period T?
Or
(b) What is Digital and Analog signal?

13. (a) Explain about Circuit Switch Network.
Or
(b) What is dial-up modem Technology?

14. (a) Discuss about Single bit Errors.
Or
(b) What is hamming distance?

15. (a) Explain IEEE 802.11 architecture.
Or
(b) Explain need of IPv4.

PART C — (5 × 8 = 40 marks)

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

Each answer should not exceed 600 words.

16. (a) Discuss in detail about OSI layers with neat diagram.

Or

- (b) Write about the addressing.

17. (a) Write in detail about Time and Frequency domains.

Or

- (b) With neat diagram explain about Guided media.

18. (a) List four major components of a packet switch and their functions.

Or

- (b) What is LATA? What are intra-LATA and inter-LATA services?

19. (a) What kind of error is undetectable by checksum?

Or

- (b) Write and explain Stop and wait protocol.

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20. (a) Write in details about Sliding window protocols.

Or

- (b) What are three domains of the domain name space?
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