

4557/SCS8A52/
SCS9A52

NOVEMBER 2013

COMPUTER NETWORKS

(For those who joined in July 2008 and after)

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. _____ mode is used when the two interconnected devices wish to exchange information alternatively.
(a) Simplex (b) Half-Duplex
(c) Full-Duplex (d) Parallel
2. The network topology in which devices are not linked to each other and where hub acts as a central controller is _____ topology.
(a) Mesh (b) Star
(c) Ring (d) Tree
3. Which media does not come under the guided media?
(a) Fiber Optics (b) Coaxial Cable
(c) Microwave (d) Twisted Pair

4. The _____ layer is the lowest layer of the OSI model.
- (a) Presentation (b) Network
(c) Transport (d) Physical
5. In _____ mechanism, one data frame is sent at a time and is acknowledged.
- (a) Simplex (b) Stop-and-wait
(c) Sliding Window (d) Duplex
6. HDLC stands for _____.
- (a) High Level Data Link Control
(b) High Data Level Control
(c) Heavy Data List Control
(d) High Device Level Control
7. CSMA/CD stands for _____.
- (a) Carrier Sense Multiple Access with Collision Detection.
(b) Common Sense Multi Access with Compact Disk.
(c) Carrier Standard Many Access with Common Data.
(d) Common Sense Multiple Adapter with Collision Detection.

8. _____ LAN standard is based on optical fibre as transmission medium.
- (a) Token Bus (b) Token Ring
(c) FDDI (d) CSMA
9. Communication via _____ switching implies that there is a dedicated path established between the source and destination nodes.
- (a) Message (b) Circuit
(c) Packet (d) Token Ring
10. In ISDN, Bearer Channel operates at a rate of _____ KBps.
- (a) 16 (b) 32
(c) 64 (d) 128

SECTION B — ($5 \times 7 = 35$ marks)

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

11. (a) Discuss about Data Communication Characteristics and Components.

Or

- (b) Write Short Notes on: Network Classifications.

12. (a) Discuss about any TWO Guided Transmission Media.

Or

- (b) Write Short Notes on: CRC and Checksum.

13. (a) Discuss in detail, Stop-and-Wait Flow Control.

Or

(b) Discuss briefly on :HDLC.

14. (a) Write about Ethernet.

Or

(b) What is FDDI? Explain.

15. (a) Discuss briefly on: Packet Switching.

Or

(b) Discuss in detail, Broadband ISDN.

SECTION C — ($3 \times 10 = 30$ marks)

Answer any THREE questions.

16. Explain about Layered Architecture of the OSI reference model.

17. Describe in detail, Unguided Transmission Media.

18. Describe about Sliding Window Protocol.

19. Explain about Token Bus LAN.

20. What are ISDN layers? Explain their functions.