

C 80508

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Name

Reg. No.



**EIGHTH SEMESTER B.TECH. (ENGINEERING) [09 SCHEME] DEGREE
EXAMINATION, APRIL 2015**

AI 09 802—DATA AND COMPUTER COMMUNICATIONS

Time : Three Hours

Maximum : 70 Marks

Part A

1. Name any *two* guided media used for data communications.
2. What is Time division Multiplexing ?
3. Why hexagonal geometry is preferred for cellular mobile communications ?
4. Compare Circuit switching and packet switching.
5. What is Internetworking ?

(5 × 2 = 10 marks)

Part B

6. What are Multi-Service networks ? Explain.
7. Compare Synchronous and Asynchronous transmission.
8. With neat sketch explain digital subscriber line.
9. What is flow control and link management ? Explain..
10. Explain high speed LANs.
11. Explain the general requirements for a protocol.

(4 × 5 = 20 marks)

Part C

12. (a) (i) Explain the standard organizations for data communications.
(ii) Compare serial and parallel data transmission.

Or

- (b) (i) Explain PSDN and broadband networks.
(ii) Explain channel capacity and its limitations.

13. (a) What is the need for synchronization in data communication? Explain bit and character synchronization.

Or

- (b) Briefly explain the various error detection and correction schemes used in data communications.

Turn over

14. (a) Explain LAN and its topologies.

Or

(b) Explain Asynchronous Transfer Mode.

15. (a) Discuss in detail about Internet Architecture and protocol.

Or

(b) Explain in detail about Network security and its applications.

(4 × 10 = 40 marks)