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**Question Paper Code : 31290**

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2013.

Seventh Semester

Electronics and Communication Engineering

080290066 — HIGH SPEED NETWORKS

(Regulation 2008)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Define the Basic and Primary Rate Access in ISDN?
2. What are the salient points of ADSL?
3. Why are adaptation layers necessary in ATM?
4. What is the function of Label Edge Router (LER) in MPLS?
5. What design considerations make AAL 5 suitable for many network applications?
6. Briefly describe LANE?
7. Name any four Traffic parameters of ATM.
8. What are the methods used for conformance of QOS in Networks?
9. Explain briefly the how MPLS supports Virtual Networks.
10. What are the factors to be taken into account in designing ATM networks?

PART B — (5 × 16 = 80 marks)

11. (a) (i) With a neat diagram explain B-ISDN reference Model? (8)
- (ii) Describe in detail DSL and ADSL? (8)

Or

- (b) Describe in detail a full ISDN system with all its various interfaces with neat diagram? (16)

12. (a) (i) Explain the UNI and NNI frame formats in ATM? (8)  
(ii) Explain AAL 3/4 in full detail. (8)

Or

- (b) Discuss MPLS label stacking and MPLS label distribution in detail? (16)
13. (a) What are the three complimentary techniques used in the formation of the MPOA capability and how are they integrated? (16)

Or

- (b) Write short notes on Packet Voice Networking and Voice Trunking? (16)
14. (a) Describe in detail how GCRA is used in describing traffic in ATM networks with examples. (16)

Or

- (b) Explain the following in High Speed Networks
- (i) Window Congestion control Mechanism. (8)  
(ii) Rate Congestion control Mechanism. (8)
15. (a) What are the factors to be taken into account when designing an MPLS network and give a brief description of each factor and its significance in the functioning of MPLS? (16)

Or

- (b) Discuss the various applications of ATM and MPLS briefly. (16)
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