

**M.E DEGREE EXAMINATIONS: JANUARY 2011**

First Semester

**APPLIED ELECTRONICS**

COM521: High Performance Communication Networks

**Time: Three Hours**

**Maximum Marks: 100**

**Answer ALL Questions:-**

**PART A (10 x 2 = 20 Marks)**

1. Write the IEEE 802.3 frame structure.
2. How is token holding time calculated in the FDDI protocol?
3. Write the common reference configuration (interface) of ISDN network.
4. What are Basic Rate Interface and Primary Rate Interface?
5. List the ATM service categories.
6. Define maximum burst size in ATM.
7. What is meant by overlay model?
8. How is scalability achieved in differentiated services?
9. Name the two types of wireless protocols.
10. What are the features of photonic switching?

**PART B (5 x 16 = 80 Marks)**

11. a) Explain in detail about DQDB with relevant diagrams  
(OR)  
b) Discuss in detail about IEEE 802.11 protocol.
12. a) Draw the ISDN architecture and explain in detail.  
(OR)  
b) Explain the SS7 protocol stack
13. a) Discuss in detail about frame relay protocol  
(OR)  
b) Discuss in detail about ATM adaptation layer.
14. a) Explain in detail about resource ReSerVation Protocol  
(OR)  
b) Write short notes on the following  
(i) Labeling techniques in MPLS (10)  
(ii) Multiprotocol over ATM (MPOA) (6)
15. a) Describe various IP switching methods in detail.  
(OR)  
b) Discuss in detail about the operation of Logical link control and adaption protocol in detail.

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