QP Code : 5133

(3 Hours) [Total Marks : 80

N. B. : (1) Question No. 1 is **compulsory**.
   (2) Attempt any **three** questions from remaining **five** questions.
   (3) **All** questions carry **equal** marks.

1. (a) List the Networking components and map all networking components with OSI layer. **5**
   (b) What are the components in ATM? Explain it in brief. **5**
   (c) What do you mean by multiple access? Compare between CSMA/CD & CSMA/CA. **5**
   (d) What do you mean by decentralized peer to peer file sharing? How it is different from centralized system? **5**

2. (a) Identify from IPV4 header **5**
      (i) Which feild gives no. of hops count
      (ii) What is the minimum and maximum length of HLEN
      (iii) What are the differenciate services explain TOS bits.
      (iv) Which feilds are related to fragmentation process.
      (v) How to calculate total length. Give the functional difference between IPV4 & IPV6.
   (b) Which protocol send the error messages back to the source? Explain th query messages of ICMP. **15**

3. (a) Explain the classful addresses of IPV4 with net-id and host-id. **10**
   (b) An ISP are granted a block of addressess starting with 120.60.4.0/20. The ISP wants to distribute these blocks to 100 organizations with each organization receiving 8 address only. Design subblocks and give the slash notation for each subblock. find out how many addresses are still available after these allocations. **10**

4. (a) Classify routing protocol? Explain in brief the concept of link state and distance vector algorithms with examples. **10**
   (b) What is the role of domain name server? Explain working of DNS server with different records. **10**

5. (a) Explain in brief DSL and HFC. **10**
   (b) Draw and explain the architecture of IEEE 802.11. **10**

6. (a) What do you mean by flow control compare flow control techniques. **10**
   (b) Explain in detail the different transmission media. **10**

JP-Con. : 10241-15.