### **Department of Electronics & Communication Engineering**

Class: BE (E&C)
Semester: First
Session: 2013-14

### **Assignment-I**

- **Q: 1.** Explain the system architecture of Narrowband ISDN with suitable diagram.
- **Q: 2.** Give features of ATM networks? With a proper sketch explain ATM cell header format.
- **Q: 3.** Explain the concept of Internet with respective to other networks.
- Q: 4. Enlist different Wireless transmission techniques & explain anyone in details.
- **Q: 5.** What do you understand by term circuit switching & packet switching network. Discuss in brief Virtual switching.

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## **Assignment-II**

- **Q: 1.** What is IEEE 802.2 Standard? Explain with the help of header format & relevant diagrams.
- **Q: 2.** Give the different transmission modes in HDLC? Also explain HDLC frame format with neat diagram.
- Q: 3. Explain CSMA/CD protocol as applied to LAN network with relevant diagrams & frame format.
- Q: 4. Enlist different multiple access protocols. Explain any one.
- **Q: 5.** Explain design issues related with data link layer in details.

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### **Assignment-III**

- **Q: 1.** Explain any one type of congestion control algorithm.
- **Q: 2.** How shortest path is selected by a router? Explain in detail hierarchical routing by appropriate representation.
- **Q: 3.** Give the comparison between virtual circuit & datagram approaches used in packet switching with reference to different issues.
- **Q: 4.** What is Routing? Why it is essential? Explain the basic types of Routing Algorithms.
- Q: 5. Explain at each hop, how flow is reduced in hop by hop choke packet.

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### **Assignment-IV**

- **Q: 1.** What is ARP? How ARP is implemented? Draw ARP protocol format & explain in brief.
- Q: 2. Explain concept of checksum & fragmentation.
- Q: 3. With the help of neat sketches explain various classes of IP addressing.
- **Q: 4.** How does DHCP work explain it in detail.
- **Q: 5.** What are the advantages of IPV<sub>6</sub> over IPV<sub>4</sub>? With the appropriate diagram explain different extension headers used in it.

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## Assignment-V

- **Q: 1.** Explain in brief how SNMP provide access to the management information.
- Q: 2. Explain how flow control & error control are performed in transport layer using TCP.
- Q: 3. With the help of proper structure explain in detail various fields as a part of TCP packet.
- **Q: 4.** Explain concept of WWW & e-mail applications in details.
- **Q: 5.** For a Domain Name System explain message format for Name server & draw the header format.