**Preliminary Exam**

# Course Name: Information Technology Group Semester: 4(G) Marks: 100

Subject: **DCN (17429)** Date: - **11/3/2014** Time: **9.30 am To 12.30 pm**

**Q.1 (A) Attempt any SIX of the following 12 Marks**

1. Define Protocols. Why it is needed?
2. Compare Guided media and Unguided Media. (2 Points)
3. What is Peer-to-Peer Process?
4. f. What is IP Address? Why it is require?
5. h. What is SMDS?
6. What is Error? Enlist types of errors.
7. What are the problems in internetworking?
8. g. What is repeater? Give its use.

**Q.1 (b) Attempt any TWO of the following 08 Marks**

1. c. Compare TCP and UDP (4 points)
2. Draw neat diagram for Circuit switching. Explain in brief
3. List and describe various Communication Modes.

**Q.2 Attempt any FOUR of the following 16 Marks**

1. What is Persistent TCP Connection? Give its importance.
2. What is DNS server? Describe Concept of DNS.
3. Explain Hands off operation in Mobile telephone.
4. Describe FTP and TFTP.
5. Describe Leased Line connection. Give its needs
6. e. Explain DQDB (Distributed Queue Dual Bus)?

**Q.3 Attempt any FOUR of the following 16 Marks**

1. b. Draw Architecture of ISP.
2. What is Topology? List various topologies.
3. Describe following

i. Routers ii. Gateways

1. Describe following

i. Wi-Fi ii. Wi-Max

g. What is UDP? Give structure of UDP Packet.

h. What is hybrid Topology? Give its advantage over other topology

**Q.4 Attempt any FOUR of the following 16 Marks**

1. Draw WAN Architecture.
2. What is WAN Addressing? Give its use.
3. Describe working of ARP and RARP.
4. What is Virtual LAN? Describe with neat diagram.
5. What is Multiplexing? Give its Type.
6. Compare Analog signal and Digital Signal (4 Points)

**Q.5 Attempt any FOUR of the following 16 Marks**

1. Define Standards. List various Standard Organizations.
2. Draw construction of Fiber optic cable. Describe its construction in brief.
3. Describe working of Token Ring. Give its advantages and disadvantages over conventional Ring Topology.
4. Compare TDM and FDM
5. Explain Asynchronous, Synchronous Communication

f. Draw OSI Reference Model. Describe working of any two layers.

**Q.6 Attempt any FOUR of the following 16 Marks**

1. Describe Internet topology.
2. Describe Following

i. Baud rate ii. Data Transmission Rate

iii. Bandwidth iv. Bits per rate

1. Compare Fast Ethernet and Gigabit Ethernet.
2. Describe Cable Modem with neat diagram.
3. Describe the application of IEEE Standards.
4. Describe Dial Up network with its specifications.