Seat No.: _____

[A-1]

SARDAR PATEL UNIVERSITY
PGDCA Semester – I Examination - 2016
PGDCA – 104 : NETWORK FUNDAMENTALS

DATE : 26/10/2016
TIME : 10.00 A.M TO 01.00 P.M.

TOTAL MARKS : 70

Q.1 Select the most appropriate answer for the following: [08]

1. _____ have a single communication channel that is shared by all the machines on the network.
   a) Point to Point   b) Broadcast   c) Specialized Network   d) People Network

2. _____ is not a guided medium.
   a) Twisted Pair   b) Atmosphere   c) Fiber cable   d) Coaxial Cable

3. A _____ is a set of rules that govern data communications
   a) Layer   b) Network   c) Protocol   d) Communication

4. Bit synchronization is responsibility of _____ .
   a) Physical Layer   b) Presentation Layer
   c) Network Layer   d) Data link layer

5. Which of the following topology requires maximum cabling?
   a) Star   b) Mesh   c) Ring   d) Bus

6. The signal from a satellite is normally aimed at a specific area called _____ .
   a) up link   b) repeater   c) down link   d) foot print

7. Traditional LANs run at speeds of _____ to _____ Mbps.
   a) 20 to 100   b) 10 to 1000   c) 100 to 1000   d) 10 to 100

8. The full form of FDM is _____ .
   a) Frequency Distribution Method   b) First Division Method
   c) Frequency Division Multiplexing   d) Frequency Division Method

Q.2 Answer the following questions (Any Seven): [14]

1. List all the layers of OSI model.
2. Write the differences between parallel transmission and serial transmission.
3. Explain Local Area Network in detail.
4. Define the term modulation.
5. Explain Broadcast in detail.
6. Write the components of data communication system.
7. Discuss URL, in brief.
8. Write full form of CSMA and HTTP
9. Explain Internetwork in detail.

Q.3 [A] Define the term computer network with their advantages and disadvantages. **[06]**

Q.3 [B] Explain twisted pair coaxial cable in detail. **[06]**

<div align="center">**OR**</div>

    [B] List all topologies and explain STAR topology with advantages and disadvantages. . **[06]**

Q.4 [A] Discuss circuit switching Technique in detail. **[06]**

Q.4 [B] Write a note on : CSMA/CD **[06]**

<div align="center">**OR**</div>

    [B] Explain simplex, half-duplex and full-duplex with example. **[06]**

Q.5 [A] Explain Physical layer and Transport layer of OSI model with their responsibilities. **[06]**

Q.5 [B] What do you mean by multiplexing? Explain FDM and TDM. **[06]**

<div align="center">**OR**</div>

    [B] Write a note on E-mail. **[06]**

Q.6 [A] Discuss WWW in detail. **[06]**

Q.6 [B] Write a note on : Geosynchronous Satellite. **[06]**

<div align="center">**OR**</div>

    [B] Explain DNS in detail. **[06]**

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