SEAT No._____

[96]   SARDAR PATEL UNIVERSITY
           External Examination (CBCS) **(NC)**
        B. Sc. (Computer Science) – 5th - Semester
           US05CCSC04: Computer Networks
           23th December, Tuesday – 2020

Time: 2:00 pm to 4:00 pm   Total Marks: 70

Q-1 Select an appropriate option.   [10]

1. A computer network permits sharing of _____.
    (a) Resources   (b) Information   (c) Both (a) & (b)   (d) None of these

2. A _____ is a data communication system spanning states, countries, or the whole world.
    (a) MAN   (b) LAN   (c) WAN   (d) None of these

3. If a computer on the network shares resources for others to use, it is called ____
    (a) Server   (b) Client   (c) Mainframe   (d) Router

4. Which of the following modulation requires the lowest bandwidth?
    (a) ASK   (b) PSK   (c) FSK   (d) QPSK

5. What is the major factor that makes coaxial cable less at risk to noise than twisted-pair cable?
    (a) Inner Conductor   (b) Outer conductor
    (c) Diameter of cable   (d) Insulating material

6. Transmission media are usually categorized as _____.
    (a) Fixed or unfixed   (b) Guided or unguided
    (c) Determinate or indeterminate (d) Metallic or nonmetallic

7. The _____ layer lies between the network layer and the application layer.
    (a) Data link   (b) Physical   (c) Transport   (d) None of these

8. The path that a satellite makes around the world is called _____.
    (a) An orbit   (b) A period   (c) A footprint   (d) An uplink

9. Which topology requires a central controller or hub?
    (a) Star   (b) Mesh   (c) Bus   (d) Ring

10. Which topology requires a multipoint connection?
    (a) Mesh   (b) Star   (c) Ring   (d) Bus

(P.T.O.)

Q-2   Fill in the blanks / True or False   [08]

1.   WAN stands for _____.
2.   A _____ is a data communication system within a building, plant, or campus, or between nearby buildings.
3.   _____ cable is used for voice and data communications.
4.   _____ cable consists of an inner copper core and a second conducting outer sheath.
5.   Internet layer is not present in OSI Model. (True / False)
6.   The Physical layer changes bits into electromagnetic signals. (True / False)
7.   A Hub is actually a multiport repeater. (True / False)
8.   A cable break in a Star topology stops all transmission. (True / False)

Q-3   Answer the following questions. (Attempt any **TEN**)   [20]

1.   Define computer networks.
2.   How can we classify computer networks?
3.   Define: (i) Data rate (ii) Modulation rate
4.   Explain parallel transmission in brief.
5.   List the transmission modes.
6.   List the modulation techniques.
7.   Write the full form: (i) HTTP (ii) FTP
8.   Explain routing.
9.   Explain multiplexing and demultiplexing.
10.   List the various topologies for LAN.
11.   Explain Gateway.
12.   Explain hub.

Q-4   Answer the following question. (Attempt any **FOUR**)   [32]

1.   Discuss the importance of computer networking.
2.   What is LAN? List the characteristics of LAN.
3.   Explain fiber optic in detail.
4.   What is switching? Explain packet switching in detail.
5.   Explain OSI reference model in detail.
6.   Write a note on wireless network.
7.   Explain Bus network with its advantages and disadvantages.
8.   Explain Star network with its advantages and disadvantages.

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