SEAT No._____

[97]

SARDAR PATEL UNIVERSITY
External Examination (CBCS)
B. Sc. (Computer Science) – 5th - Semester
US05CCSC24: Computer Networks
29th December, Tuesday – 2020

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

Q-1   Select an appropriate option.   [10]

1.   WAN stands for ____.
     (a) Wap Area Network   (b) Wide Area Network
     (c) Wide Array Net   (d) Wireless Area Network

2.   A _____ is a data communication system within a building, plant, or campus,
     or between nearby buildings.
     (a) MAN   (b) LAN   (c) WAN   (d) None of above

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

5.   When a beam of light travels through media of two different densities, if the
     angle of incidence is greater than the critical angle, _____ occurs.
     (a) Reflection   (b) Refraction   (c) Incidence   (d) Criticism

6.   _____ Cable is used for voice and data communications.
     (a) Coaxial   (b) Fiber-optic   (c) Twisted-pair   (d) None of these

7.   The _____ layer changes bits into electromagnetic signals.
     (a) Physical   (b) Transport   (c) None of these   (d) Data link

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

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

10. A repeater takes a weakened or corrupted signal and _____ it.
     (a) Resamples   (b) Reroutes   (c) Amplifies   (d) Regenerates

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

1.   Broadcasting means sending message to all computer in the same network.
     (True / False)

Page 1   (P.T.O.)

2. A MAN is a collection of many separate networks. (True / False)
3. Coaxial cable consists of an inner copper core and a second conducting outer sheath. (True / False)
4. Coaxial Cable can carry signals of higher frequency ranges than twisted-pair cable. (True / False)
5. A Bluetooth network can have _____ master(s).
6. The path that a satellite makes around the world is called _____.
7. A cable break in a _____ topology stops all transmission.
8. Repeaters function in the _____ layer(s).

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

1. What is MAN?
2. Name the two popular LANs.
3. Define: (i) Data rate   (ii) Modulation rate
4. List the modulation techniques.
5. List the transmission modes.
6. Explain parallel transmission in brief.
7. List the seven layers of OSI.
8. Write the full form: (i) SMTP (ii) FTP
9. Define bent pipe.
10. Explain modem.
11. Explain Router.
12. Explain switches.

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

1. Define computer network. State the advantages and disadvantages of computer network.
2. Difference between broadcasting and multi casting.
3. Explain fiber optic in detail.
4. What is switching? Explain circuit switching in detail.
5. Explain OSI reference model in detail.
6. Write a note on Communication Satellite.
7. Explain Star network with its advantages and disadvantages.
8. Explain Ring network with its advantages and disadvantages.

———————— ✕ ————————