

SARDAR PATEL UNIVERSITY
B.SC. SEMESTER V EXAMINATION (CBCS)
US05CELC06: DATA COMMUNICATION AND NETWORK
22th NOVEMBER 2019, FRIDAY
10:00 AM TO 01:00 PM

Total Marks: 70

Note: Figures to the right indicate maximum marks.

Assume data wherever necessary.

- Q1 Choose the correct answer. [10]**
- 1 In which topology there is a central controller or hub?
a) Star b) Mesh
c) Ring d) Bus
 - 2 The 4 byte IP address consists of
a) network address b) host address
c) both network address & host address d) none of the mentioned
 - 3 What does stand for CRC?
a) Cycle Redundancy Check b) Cyclic Reduction Check
c) Cycle Reduction Check d) Cyclic Redundancy Check
 - 4 Data flow between two devices can occur in a _____ way.
a) Simplex b) half-duplex c) full-duplex d) all of the above
 - 5 Data communication system within a building or campus is _____
a) LAN b) WAN
c) MAN d) None of the mentioned
 - 6 Multiplexing is used in _____
a) Packet switching b) Data switching
c) Circuit switching d) Packet & Circuit switching
 - 7 The Aloha was designed for a _____ and developed in early _____.
a) TV, 1970 b) Radio, 1979 c) Radio, 1970 d) Radio, 1969
 - 8 A _____ is a set of rules that governs data communication.
a) Forum b) protocol c) standard d) none of the above
 - 9 _____ layer decides which physical pathway the data should take.
a) Application b) Network c) Physical d) Logical
 - 10 Which of the following architecture uses CSMA/CD access method?
a) ARCnet b) Ethernet c) CSNET d) ARPANET

Q-2 Answer in short [ANY TEN] [20]

- 1 Define : Network.
- 2 Write a note on RS – 232 interface.
- 3 What do you mean by cyclic redundancy code (CRC)?
- 4 Define : Collision detection.
- 5 Explain the term virus.
- 6 Discuss the linear code.
- 7 Explain the term Network configuration
- 8 Give the difference between Synchronous and asynchronous transmission.
- 9 Define : virus evolution.

- 10 List out the different layers of OSI reference model.
- 11 Give short note on the need for standards.
- 12 What is Ethernet?

Q-3 A Explain the each block of OSI reference model in detail with neat and clean block diagram. [10]

OR

- A Explain the Local area network with appropriate examples. [05]
- B Discuss the star topology. [05]

Q-4 A Write a short note on synchronous transmission. [07]
B Explain the term token passing. [03]

OR

Q-4 A Define: Protocol. Explain in detail the carrier sense multiple access. [10]

Q-5 A Write a note on computer hacker. [06]
B Discuss in detail internet worm. [04]

OR

Q-5 A Explain in detail cyclic Redundancy Checks (CRC) implementation using circular shift with example. [10]

Q-6 A Discuss the go back-protocol. [06]
B Explain the Token bus: IEEE standard 8024 [04]

OR

Q-6 A Discuss about Sliding window Protocol. [10]

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