



A Charutar Vidya Mandal's Institution
V.P. & R.P.T.P. SCIENCE COLLEGE
(AUTONOMOUS) (Grant-in-Aid)
Affiliated to Sardar Patel University
VALLABH VIDYANAGAR-388120



Bachelor of Computer Applications (Semester- 5) Internal Examination - 2025
US05MABCA01: COMPUTER NETWORKS

Date: 22/09/25 Day: Monday
Time: 10:45 am To 12:15 pm

Total marks :30

[06]

Q:1 Multiple Choice Questions:

1. What does a network help improve in communication?
(A) File size (B) Signal strength
(C) Information sharing (D) Battery life
2. What is it called when a packet is sent to all machines in a network?
(A) Unicasting (B) Casting
(C) Broadcasting (D) Narrowcasting
3. Which of the following is not a guided medium?
(A) Twisted-pair cable (B) Coaxial cable
(C) Fiber-optic cable (D) Atmosphere
4. A set of layers and protocols is called _____.
(A) Network Architecture (B) Protocol Stack
(C) Computer Architecture (D) Layers Stack
5. Physical addressing and framing is responsibility of _____.
(A) Data link layer (B) Session layer
(C) Transport layer (D) Application layer
6. Which of the following is not a valid form of CSMA?
(A) 1-persistent (B) p-persistent
(C) non-persistent (D) persistent

Q:2 Explain the term Computer Network along with its advantages and disadvantages.

[06]

OR

Q:2 Describe Classification of Computer Networks in detail.

Q:3 List out various types (classes) of transmission Medias. Explain any two of them.

[06]

OR

Q:3 Explain in detail the structure, types, and advantages of fiber-optic cables in detail.

Q:4 What is OSI Model? Explain any two layers of OSI Model in detail along with diagram.

[06]

OR

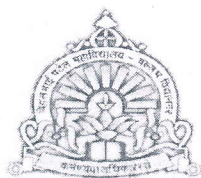
Q:4 Write a note on design issues for the layers.

Q:5 Describe Modem, Repeater, and Router in detail.

[06]

OR

Q:5 Explain Wireless network and Bluetooth in detail.



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Bachelor of Computer Applications (Semester - 5) Quiz - 2025
US05MABCA01 : COMPUTER NETWORKS

Date: 22/09/25 Day: Monday

Time: Maximum 20 minutes

Total marks :15

Q-1 Fill in the blanks with appropriate answer given in the bracket.

[08]

- i. A _____ is a set of devices referred to as nodes connected by media links.
- ii. A host is a _____ on a network.
- iii. A _____ cable is made of glass or plastic and transmits signals in the form of light.
- iv. _____ is an analog multiplexing technique that combines analog signals.
- v. A _____ is a set of rules that govern data communications.
- vi. OSI stands for _____.
- vii. A Bluetooth Network is called a _____.
- viii. A _____ can be used to solve problem of attenuation.



Q-2 Whether the following statement is true or false. Write your answer in the box. [07]

- i. The signal from a satellite is normally aimed at a specific area called orbit . []
- ii. Service point addressing is responsibility of Transport layer. []
- iii. A switch performs filtering on the basis of MAC address. []
- iv. Coaxial cables have lower attenuation than twisted pair cables. []
- v. In a fiber-optic cable, the signal is propagated along the inner core by reflection. []
- vi. Interconnected collection of autonomous computers is known as server. []
- vii. MAN stands for Metropolitan Area Network. []