

[24]

**SARDAR PATEL UNIVERSITY**  
**B.Sc. Semester VI (Electronics and Communication)**  
**Subject Code: US06CELC06**  
**Subject: Network Infrastructure Management**  
**Date: 06/04/2018, Friday**  
**Time : 10.00 AM to 1.00 PM**

Total Marks: 70

Note: Figures to the right indicate maximum marks.

- Q1** **Choose the correct answer.** [10]
1. Computer Network is
    - a) Collection of hardware components and computer
    - b) Sharing of resources and information
    - c) Interconnected by communication channels
    - d) All of the Above
  2. What is a Firewall in Computer Network?
    - a) The physical boundary of Network
    - b) An operating System of Computer Network
    - c) A web browsing Software
    - d) A system designed to prevent unauthorized access
  3. 26GHz to 40GHz is a Frequency range for \_\_\_\_\_.
    - a) Satellite
    - b) Omni directional
    - c) Single mode
    - d) Microwave
  4. What is the use of Bridge in Network?
    - a) to connect LANs
    - b) to separate LANs
    - c) to control Network Speed
    - d) None of all
  5. DNS is the abbreviation of
    - a) Dynamic Name System
    - b) Domain Name System
    - c) Dynamic Network System
    - d) Domain Network Service
  6. For longer distance \_\_\_\_\_ Fiber is used.
    - a) Multimode
    - b) Mono mode
    - c) wireless
    - d) Single mode
  7. What is the meaning of Bandwidth in Network?
    - a) Transmission capacity of a communication channels
    - b) Connected Computers in the Network
    - c) Class of IP used in Network
    - d) None of Above
  8. The \_\_\_\_\_ topology has highest reliability
    - a) Mesh
    - b) Star
    - c) Bus
    - d) Ring
  9. IPV4 Address is
    - a) 8 bit
    - b) 16 bit
    - c) 32 bit
    - d) 64 bit
  10. Router operates in which layer of OSI Reference Model?
    - a) Layer 1 (Physical Layer)
    - b) Layer 3 (Network Layer)
    - c) Layer 4 (Transport Layer)
    - d) Layer 7 (Application Layer)

- Q2** **Answer in short. [ANY TEN]** [20]
- 1 Define : Network
  - 2 What is the bridges and repeaters?
  - 3 Describe Wireless transmission.
  - 4 Draw the seven discrete Layers of TCP/IP protocol.

①

[P.T.O.]

- 5 Write a short note on World Wide Web (WWW).
- 6 What is the key difference between Physical and Logical Topology?
- 7 What are input and output devices of computer?
- 8 Define the Gateway of Computer Network.
- 9 Write down the various generations and its invented year.
- 10 Draw the layers of internet protocol.
- 11 Write down the network management group.
- 12 Write a note on HTTP.

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- Q3 A Explain Security tools: Packet filtering and encryption. [06]  
 B Explain in detail multiplexers. [04]
- OR
- A Define Virtual private network. [10]
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- Q4 A Describe Open Systems Interconnection Reference model. [10]
- OR
- Q4 A Describe Security strategy of Password management [05]  
 B How to describe network management component. [05]
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- Q5 A What is topology? Explain Bus, Star and Ring Topology with their advantages and disadvantages. [07]  
 B What is the token passing and collision detection? [03]
- OR
- Q5 A Discuss fully connected and combined topology in detail. [05]  
 B Discuss various generations of Computers. [05]
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- Q6 A Explain basic transmission medium concepts in details. [10]
- OR
- Q6 A Explain Transmission Control Protocol and Internet Protocol. [05]  
 B How to understand about Networking environment. [05]
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