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## C.U.SHAH UNIVERSITY

 Summer Examination-2018
## Subject Name : Computer Networks

Subject Code : 4TE05CNW1

## Branch: B.Tech (CE,IT)

Time : 10:30 To 01:30 Marks : 70

Instructions:
(1) Use of Programmable calculator \& any other electronic instrument is prohibited.
(2) Instructions written on main answer book are strictly to be obeyed.
(3) Draw neat diagrams and figures (if necessary) at right places.
(4) Assume suitable data if needed.

## Attempt the following questions:

1 Computer Network is
a. Collection of hardware components and computers
b. Interconnected by communication channels
c. Sharing of resources and information
d. All of the Above

2 How many layers do OSI Reference Model have?
a. 4
b. 5
c. 6
d. 7

3 Which of the following layer is not network support layer?
a. Transport Layer
b. Network Layers
c. Data link Layer
d. Physical Layer

4 DHCP is the abbreviation of
a. Dynamic Host Control Protocol
b. Dynamic Host Configuration Protocol
c. Dynamic Hyper Control Protocol
d. Dynamic Hyper Configuration Protocol

5 What is the address size of IPv6?
a. 32 bit
b. 64 bit
c. 128 bit
d. 256 bit

6 Which of the following layer of OSI model also called end-to-end layer?
a. Presentation layer
b. Network layer
c. Session layer
d. Transport layer

7 What is the size of MAC Address?
a. 16-bits

b. 32-bits
c. 48 -bits
d. 64 -bits

8 TCP/IP model does not have $\qquad$ layer but OSI model have this layer.
a. session layer
b. presentation layer
c. application layer
d. (a) \& (b) both

9 Which layer is responsible for process to process delivery?
a. network layer
b. transport layer
c. session layer
d. data link layer

10 The network layer protocol of internet is
a. Ethernet
b. internet protocol
c. hypertext transfer protocol
d. none of the mentioned

11 physical layer provides
a. mechanical specifications of electrical connectors and cables
b. electrical specification of transmission line signal level
c. specification for IR over optical fiber
d. all of the mentioned

12 Which of the following is an application layer service?
a. Network virtual terminal
b. File transfer, access, and management
c. Mail service
d. All of the mentioned

13 The network layer concerns with
a. Bits
b. Frames
c. packets
d. none of the mentioned

14 Application layer offers $\qquad$ service
a. End to end
b. Process to process
c. Both of the mentioned
d. None of the mentioned

## Attempt any four questions from $\mathbf{Q - 2}$ to $\mathbf{Q - 8}$

| Q-2 |  | Attempt all questions | (14) |
| :--- | :--- | :--- | :---: |
|  | $\mathbf{1}$ | Explain OSI Model in Brief | $\mathbf{5}$ |
|  | $\mathbf{2}$ | Discuss TCP/IP Model | $\mathbf{5}$ |
|  | $\mathbf{3}$ | Discuss Frame relay and X.25 | $\mathbf{4}$ |
|  |  |  |  |
| $\mathbf{Q - 3}$ |  | Attempt all questions | $\mathbf{( 1 4 )}$ |
|  | $\mathbf{1}$ | Write a note on Bandwidth of Physical Layer | $\mathbf{5}$ |
|  | $\mathbf{2}$ | Write a note on Maximum data rate of a signal | $\mathbf{5}$ |

1 Explain OSI Model in Brief
2 Discuss TCP/IP Model
Discuss Guided and unguided transmission media ..... 4
Q-4 Attempt all questions ..... (14)
Write a note on Framing, Error control in Data Link Layer5
2 Write a HDLC ..... 5
3 Write a note on Sliding window protocol ..... 4
Q-5 Attempt all questions ..... (14)
1 Write a note on ALOHA5
2 Discuss Spanning tree and bridges, ..... 5
3 Write a note on Virtual LANs. ..... 4
Q-6 Attempt all questions ..... (14)
1 Comparison of virtual circuit and datagram subnets in network Layer ..... 5
2 Discuss The Optimality principle in network layer ..... 5
3 Write a note in Mobile IP and IPv6 ..... 4
Q-7 Attempt all questions ..... (14)
1 Discuss Connection establishment and Connection release in Transport Layer5
2 Discuss Multiplexing in Transport Layer ..... 5
3 Write a note on UDP, TCP in Transport Layer ..... 4
Q-8 Attempt all questions ..... (14)
1 Discuss DNS name space and Resource records in Application Layer ..... 5
2 Write a note on World Wide Web Architecture ..... 5
3 Discuss Electronic mail Architecture and services ..... 4

