

C.U.SHAH UNIVERSITY

Summer Examination-2016

Subject Name: Computer Networks

Subject Code: 4TE05CNW1

Branch: B.Tech (CE)

Semester: 5

Date: 21/04/2016

Time :02:30 To 05:30

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.
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Q-1 Attempt the following questions :

(14)

- a) **Define:** Topology.
- b) **Define:** Protocol.
- c) **Define:** Interface.
- d) **Define:** Transmission Mode.
- e) **Define:** Logical addressing.
- f) **Define:** Jitter Control.
- g) **Which is the device belongs to the OSI network layer?**
(A) Switch (B) Repeater
(C) Gateway (D) Router
- h) **MTU Stands for**
(A) Minimum Transfer Unit (B) Maximum Transfer Unit
(C) Minimum Transmission Unit (D) Maximum Transmission Unit
- i) **RIP is based on**
(A) Link State routing (B) Distance vector routing
(C) Dijkstra's algorithm (D) Path vector routing
- j) **Subnetting and Supernetting techniques are used to help avoid**
(A) Congestion at Routers (B) The running out of address space problem
(C) Overflow of buffer at receiver (D) Duplication of Datagrams
- k) **The data link layer takes the packets from _____ and encapsulates them into frames for transmission.**
(A) network layer (B) physical layer
(C) transport layer (D) application layer



- l) **In Stop and Wait ARQ if ACK1 is sent by receiver then the sender Sends**
 (A) Frame-1 (B) Frame-2
 (C) Frame-0 (D) None of these
- m) **Piggybacking is a method of**
 (A) Backtracking (B) Forwarding
 (C) Method to combine a data frame and ACK (D) None of these
- n) **The Data-Link layer is divided into**
 (A) MAC and LLC (B) L2CAP and MAC
 (C) LCAP and MAC (D) None of these

Attempt any four questions from Q-2 to Q-8

Q-2 Attempt all questions

- a) Explain OSI/ISO reference model and its function. **08**
 b) Explain LAN, MAN & WAN. **06**

Q-3 Attempt all questions

- a) Discuss different types of guided and unguided media used to transmit data in network. **08**
 b) Explain STOP and Wait Protocol. **06**

Q-4 Attempt all questions

- a) Enlist various framing techniques used in data link layer. Explain any one in detail with suitable example. **08**
 b) Explain GO Back N & Selective Repeat Protocol. **06**

Q-5 Attempt all questions

- a) Explain CSMA with Collision Detection. **08**
 b) Explain Bridge, Hub, and Router & Gateway. **06**

Q-6 Attempt all questions

- a) Explain Shortest Path Routing & Examples. **07**
 b) Explain Virtual LAN with suitable Example. **07**

Q-7 Attempt all questions

- a) Explain IP4 Address. **07**
 b) Difference Virtual Circuit and Datagram Circuit. **07**

Q-8 Attempt all questions

- a) Explain SMTP and POP3. **07**
 b) Explain WWW and HTTP. **07**



