

C.U.SHAH UNIVERSITY**Winter Examination-2015****Subject Name: Computer Networks****Subject Code: 4TE05CNW1****Branch: B.Tech(CE,IT)****Semester: 5****Date:02/12/2015****Time:2:30 To 5:30****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 :(One mark for each) (14)

- a) **Segmentation is done**
(A) Transport Layer (B) Network Layer
(C) Application Layer (D) Data Link Layer
- b) **Which of the following devices translates dissimilar network protocols?**
(A) Router (B) Repeater
(C) Switch (D) Gateway
- c) **Which is the device belongs to the OSI physical layer?**
(A) Switch (B) Repeater
(C) Gateway (D) Router
- d) **What is the name of the fixed route established at the time of initial connection setup in ATM networks?**
(A) connection network (B) data route
(C) virtual circuit (D) ring
- e) **Which error detection method uses ones compliment arithmetic?**
(A) two-dimentional parity check (B) checksum
(C) simple parity ckeck (D) CRC
- f) **What is the netmask of the gateway interface in a sub-C network where only 14 hosts may exist and IP address of one of the hosts is 193.145.122.76?**
(A) 255.255.255.224 (B) 193.145.122.15
(C) 255.255.255.0 (D) 255.255.255.240
- g) **Which of the following network address classes id reserved for multicast**



addressed only?

- (A) class A (B) class E
(C) class D (D) class C

h) Name server is a?

- (A) host with full of names (B) short of an HTTP-server
(C) network protocol (D) program answering name queries

i) if we run N simultaneous stop-n-wait ARQ processors parallels over the transmission channel, then it is equal to

- (A) Go-back N protocol (B) SR Protocol
(C) Stop-n-wait protocol (D)None of these

j) How many network bits does 125.140.128.16 have?

- (A) 8 (B) 32
(C) 16 (D) 24

k) What is the maximum length of Cat-5 cable in a fast ethernet network?

- (A) 180 m (B) 200 m
(C) 100 m (D) 1200 m

l) What is the maximum size of the data that application layer can pass on to the TCP layer below?

- (A)Any Size (B)216 byte size of the TCP header
(C) 512Bytes (D)1500 byte

m) What is the port number for (Simple Mail Transfer Protocol) SMTP?

- (A) 20 (B) 25
(C) 23 (D) 24

n) Which packet is a special packet that can be sent from a router to the sender when the router encounters congestion?

- (A)Choke (B)data
(C)Control (D) None of these

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

Q-2 Attempt all questions

- a) Explain Guided Transmission Media Such As Twisted Pair, Coaxial Cable, and Fiber Optics. **07**
b) Explain LAN, MAN and WAN. **07**

Q-3 Attempt all questions



- a) Deference between OSI and TCP / IP reference model. **07**
- b) Write a short note on DNS. **07**

Q-4 Attempt all questions

- a) What are the ways to address the framing problem? **07**
- b) Explain CRC with example. **07**

Q-5 Attempt all questions

- a) The Code 11110101101 Was Received. Using the Hamming Encoding Algorithm What is the Original Code Sent? **07**
- b) Compare Stop and Wait ARQ scheme with sliding window ARQ scheme. **07**

Q-6 Attempt all questions

- a) Write a short note on “ALOHA”. **07**
- b) Explain Virtual LAN with suitable Example. **07**

Q-7 Attempt all questions

- a) Compare IP4 Address and IP6 Address. **07**
- b) Write a short note on Leaky Bucket Algorithm. **07**

Q-8 Attempt all questions

- a) Explain Link state routing and discuss its advantages over distance vector Routing. **07**
- b) Explain three handshake process with suitable diagram. **07**

