Enrollment No: _____   Exam Seat No:_____

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.

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-dimetional 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 does125.140.128.16 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   **07**
       Fiber Optics.
  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**