

Enrollment No: _____

Exam Seat No: _____

C.U.SHAH UNIVERSITY

Summer Examination-2017

Subject Name: Computer Networks

Subject Code: 4TE05CNW1

Branch: B.Tech (CE)

Semester: 5

Date: 22/03/2017

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.
-

Q-1 Attempt the following questions :

(14)

- a) Define Topology.
- b) Full Form of SNMP.
- c) What are the functions are used in Data Link Layer.
- d) How Many bytes are used in Internet Protocol 6?
- e) Define Jitter Control.
- f) List the Function of Session Layer.
- g) Define Logical Addressing.
- h) Given IP Address 156.11.1.3 Find out Class.
- i) What is the use of ARP in Network?
- j) Difference between Point to Point and Broadcasting.
- k) How many Bits are used in IP V6?
- l) Define Flow Control.
- m) What is the Hamming distance between 10001 and 11000?
- n) Write full form of TFTP.



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

Q-2 Attempt all questions

- a) Classify various transmission media for computer networks, and compare UTP and fiber optic media. **07**
- b) What is framing? Explain the various methods used for carrying out the framing in detail. **07**

Q-3 Attempt all questions

- a) Explain and compare distance vector routing and link state routing algorithm. **07**
- b) Draw IP header and explain the each field of the header. Also explain the concept of fragmentation in detail. **07**

Q-4 Attempt all questions

- a) Explain working principle of wireless LAN protocols. **07**
- b) A bit stream 110101011 is transmitted using standard CRC method . The generator polynomial is x^4+x+1 .Show the actual bit string transmitted. Also Explain the error detecting and correcting code with example. **07**

Q-5 Attempt all questions

- a) Explain working principle of HDLC. **07**
- b) Explain in detail Virtual LANs. **07**

Q-6 Attempt all questions

- a) Explain the e-mail architecture and services. Write short note on POP3 and MIME. **07**
- b) Write the functions of Media Access Control sub layer. And Compare pure ALOHA and slotted ALOHA. **07**

Q-7 Attempt all questions

- a) Discuss and list the congestion prevention policies at data link, network and transport layers that can affect the congestion. **07**
- b) Explain the basic five service primitives of the transport layer protocol. **07**

Q-8 Attempt all questions

- a) What is the main difference between forwarding and routing? Explain at least two forwarding techniques used by the router to switching to packets from input port to output port of the router. **07**
- b) Explain TCP/IP Reference Model with Suitable diagram. **07**

