Code No: 57037

R09

## JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
### B. Tech IV Year I Semester Examinations, February/March - 2016
### COMPUTER NETWORKS
### (Common to ECE, EIE, BME)

Time: 3 Hours

Max. Marks: 75

**Answer any Five Questions**
**All Questions Carry Equal Marks**
- - -

1.a) Compare and contrast OSI and TCP/IP models.
 b) Draw and explain in detail about ISO-OSI reference model. [7+8]

2.a) The following data fragment occurs in the middle of a data stream for which the character stuffing algorithm described in the text is used: DLE, STX, A, DLE, B, DLE, ETX. What is the output after stuffing?
 b) Compare virtual circuit subnet with datagram subnet. [8+7]

3.a) Given 1101011011 data frame and generator polynomial $G(x)=x^4+x+1$ derive the transmitted frame.
 b) What is pipelining? With an example, explain Go back-n sliding window protocol. [8+7]

4.a) Explain five key assumptions in Dynamic channel allocation in LANs and MANs.
 b) Explain the multiple access protocol using which the stations about their transmissions as soon as they detect a collision. [8+7]

5.a) How connections are setup and released in ATM?
 b) What is the format of routing table in ATM? How it helps in routing cells? [7+8]

6.a) What is tunneling? When it is used? Is it used in wireless LAN's?
 b) Explain internetwork routing? [8+7]

7.a) What are the similarities and differences between data link layer and transport layer.
 b) Explain addressing at transport layer. [8+7]

8.a) Compare symmetric encryption algorithms with Asymmetric encryption algorithms.
 b) What is e-mail? Briefly discuss about the User Agent. [8+7]

--ooOoo--