JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
B. Tech IV Year I Semester Examinations, June/July- 2014
COMPUTER NETWORKS
(Common to ECE, EIE, BME, ECM)

Time: 3 Hours
Max. Marks: 75

Answer any Five Questions
All Questions Carry Equal Marks
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1.a) Write any four reasons for using layered protocols.
 b) Explain the functionality of each layer in OSI reference model.

2.a) If the bit string 0111101111101111110 is bit stuffed. What is the output of the string?
 b) What is the reminder obtained by dividing x^7+x^5+1 by the generator x^3+1?

3.a) With an example, explain the importance of sequence number for Acknowledgements.
 b) Explain stop-and-wait protocol.

4. What is a token? Discuss the protocol of token ring LAN in general. Explain with an example how priority is implemented in a token ring LAN?

5.a) Describe design goals, architecture and switching mechanisms of ATM networks.
 b) Explain the functions of following devices:
 i) Hub ii) Bridge iii) Router iv) Gateway.

6.a) The major problem with distance vector algorithm is 'count to infinity'. How exchange of complete path from router to destination instead of delay, helps in solving count to infinity problem.
 b) What are the advantages of adaptive routing approach over non adaptive routing?

7. Write short notes on:
 a) Admission control
 b) Choke packet
 c) Load shedding
 d) Jitter control.

8. What is DNS? Explain its usage and its working?

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