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Roll No

CS - 604

B.E. VI Semester

Examination, June 2014

Computer Networking

Time : Three Hours

Maximum Marks : 70

- Note:** 1. There are five units.
2. Attempt one question from each unit.
3. All questions carry equal marks.

Unit - I

1. a) Explain the ISO-OSI model of computer network. Give the function of each layer. 7
b) Explain queueing system. Discuss Little's theorem. 7

OR

2. a) Explain TCP/IP model in brief. Differentiate it with seven layered model. 7
b) Explain the working of
i) Connection oriented and
ii) Connection less services. What are their advantages, disadvantages and applications? 7

Unit - II

3. a) Name important functions of data link layer. Explain flow control and error control. 7
b) Explain stop and wait protocol. Derive the expression for utilization. 7

OR

4. a) Explain sliding window protocol. Also explain how does it help to reduce congestion. 7
b) What is piggybacking? Write a note on HDLC. 7

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Unit - III

5. a) Explain the terms 'Static channel allocation' and 'dynamic channel allocation'. 7
b) Write a short note on ALOHA. Differentiate PURE ALOHA and slotted ALOHA. 7

OR

6. a) Compare collision, collision free and limited contention MCA sub layer protocol with suitable examples. 7
b) What are the different line coding techniques? Which is used in 802.3 LAN? 7

Unit - IV

7. a) Differentiate Logical, classful and classless addressing techniques. 7
b) With the help of suitable diagrams explain unicast, multicast and broadcast routing. 7

OR

8. a) Give a comparative study of IPv4 and IPv6. 7
b) What is congestion control? Explain the leaky bucket mechanism for congestion control. 7

Unit - V

9. Write short notes on any four of the followings: 14
i) UDP Header format
ii) TCP Header format
iii) HTTP
iv) Network Management
v) Presentation layer protocol (any one)
vi) DNS