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# CS - 604

# B.E. VI Semester

Examination, June 2014

# Computer Networking

www.rgpvonline.in

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.
  - b) Explain queueing system. Discuss Little's theorem. 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?

### Unit - II

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

# OR

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

# Unit-III

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

#### OR

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

# Unit - IV

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

#### OR

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

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#### 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
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