Roll No .....

IT - 503

B.E. V Semester

Examination, June 2015

Computer Networks

Time : Three Hours

Maximum Marks : 70

Note: i) Answer five questions. In each question part A, B, C is compulsory and D part has internal choice.

ii) All parts of each questions are to be attempted at one place.

iii) All questions carry equal marks, out of which part A and B (Max.50 words) carry 2 marks, part C (Max.100 words) carry 3 marks, part D (Max.400 words) carry 7 marks.

iv) Except numericals, Derivation, Design and Drawing etc.

Unit-I

1. a) Explain Data unit of each layer of OSI Model in brief.
   b) Differentiate point-to-point and broadcast networks.
   c) Write a short note of Novell Netware.
   d) Show the flow of message (an E-mail) through all the layers of OSI model at receiver end.

   OR

   Why flow, error and access control functions are defined in both transport and Data Link layers of OSI Model? Which layer takes care of dialogue control and how?

Unit-II

2. a) Explain addressing at Data Link Layer.
   b) Write a note on point-to-point data delivery.
   c) Explain the role of MAC in data Link layer as far as security is concerned.

   d) Explain IEEE 802.2 standard with diagram.

   OR

   Why flow and error control is important in data transmission? Explain Go-Back-N ARQ with diagram.

Unit-III

3. a) Write a note on WIMAX.
   b) Differentiate static and dynamic channel allocation.
   c) Derive efficiency of slotted aloha protocol with graph.
   d) State significance of channelization in computer network. Compare FDMA and TDMA.

   OR

   Explain IEEE 802.11 standard and its components in brief.

Unit-IV

4. a) What do you understand by Routing?
   b) Find class of following IP address and justify:
      i) 172.16.3.0 ii) 252.5.15.111
   c) Explain addressing at network layer.
   d) Differentiate classful and classless addressing with example.

   OR

   How many subnets and hosts per subnet can you get from the network 192.168.1.0 subnet mask is 255.255.255.224.

Unit-V

5. a) Write a note on IP configuration.
   b) State functions of Routers.
   c) Explain process to process delivery.
   d) Write and explain any one congestion control algorithm.

   OR

   Discuss all services of transport layers.

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