Total No. of Questions :5] *[Total No. of Printed Pages :2*

Roll No .....

IT-503

B.E. V Semester

Examination, December 2016

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 question 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) What is ARPANET?
   b) Discuss flow control mechanism of X.25 Protocol.
   c) Compare different networking services.
   d) What is basis of Layered Architecture? Explain ISO-OSI model of computer Network.

OR

What are the different services primitives in the OSI model for connection oriented services?

Unit-II

2. a) What is Point to Point Protocol?
   b) What does 'Error Control' mean in data link layer? What is the difference between flow control and error control?
   c) Explain the bit stuffing framing techniques of DLL with example.
   d) What is HDLC (High Level Data Link Control) protocol? Discuss its importance in data communication.

OR

Write a brief notes on Piggybacking and Pipelining.

Unit-III

3. a) What is WIMAX?
   b) What is FDDI?
   c) Differentiate between dynamic and static channel allocation.
   d) Write the difference between IEEE802.3, IEEE802.4 and IEEE802.5.

OR

Establish the difference between ALOHA and slotted ALOHA. Also explain in details the slotted ALOHA.

Unit-IV

4. a) What is congestion control?
   b) Write the salient features of IPv4.
   c) Where is the multicasting routing used? Write its advantages and disadvantages.
   d) Write a brief notes on Classless addressing.

OR

Discuss Dijkstra's Algorithm and Bellman-ford Algorithm and write the application area of these protocols.

Unit-V

5. a) What is UDP?
   b) What do you understand by Process to Process delivery?
   c) List and discuss the advantages and disadvantages of bridges relative to a router.
   d) What are the parameters for deciding the QOS at transport layer level? Give the classification of networks on the basis of above parameters.

OR

"TCP is a connection-oriented, reliable protocol". Justify the statement.

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