

Roll No

CS - 604**B.E. VI Semester**

Examination, June 2016

Computer Networking**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 are the uses of computer network now a day?
- b) What is the difference between TCP and UDP?
- c) What is the principle difference between connectionless communication and connection-oriented communication?
- d) Explain the layered architecture of OSI model? List two ways in which OSI model and TCP/IP model are same.

OR

What are the types of queuing system is used for computer network? Explain.

Unit - II

2. a) How framing is done in data link layer? Explain.
- b) What is the role of bit stuffing in data transmission?
- c) What is remainder obtained by dividing $x^7 + x^5 + 1$ by the generator polynomial $x^3 + 1$?
- d) What conditions would have to hold for a corrupted frame to circulate forever on a token ring without a monitor? How does the monitor fix this problem?

OR

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PTO

Data link protocols almost always put the CRC in a trailer rather than in header. Why?

Unit - III

- a) How is possible to allocate static channel in LANs and MANs?
- b) How adaptive tree walk protocol works?
- c) What is the difference between Multiple Access and Collision Avoidance (MACA) and MACAW (for wireless)?
- d) Consider the delay of pure ALOHA versus slotted ALOHA at the low load. Which one is less? Explain your answer.

OR

Store-and-forward switches have an advantage over cut-through switches with respect to damaged frames. Explain what it is.

Unit - IV

4. a) Explain the store-and-forward packet switching.
- b) How datagram subnet is differ from virtual-circuit subnet?
- c) How count-to-infinity problem is generated in routing algorithm?
- d) How Open Shortest Path First (OSPF) work? Explain with an example.

OR

What is recourse reservation protocol and how is it work?

Unit - V

5. a) The maximum payload of a TCP segment is 65,495 bytes. Why was such a strange number chosen?
- b) Give the advantages of RPC on UDP over transactional TCP.
- c) What is the role of SMTP and POP 3 in a mail services?
- d) DNS uses UDP instead of TCP. If a DNS packet is lost, there is no automatic recovery. Does this cause a problem? And if so, how is it solved?

OR

Write short notes on -

- i) SSH
- ii) LPP
- iii) Telnet

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