Dr. Babasaheb Ambedkar Technological University Lonere – Raigad

End-Semester Examination – NOVEMBER 2014

Class: B. Tech. (Computer Engineering/Information Technology) Semester - VI

Subject Code: CEIT602

Subject: Computer Networks

Time: 3 hours Maximum marks: 70

Instructions to the Students:

1. **Question No 1 is compulsory and carries 10 marks whereas Question No 2 to Question No 7 carry 12 marks each.**
2. **Attempt any five Questions from Question No 2 to Question No 7.**
3. **Illustrate your answers with neat sketches, diagrams etc. wherever necessary.**
4. **Necessary data is given in the respective question. If such data is not given, it means that the knowledge of that data is a part of examination.**
5. **If some part or parameter is noticed to be missing, you may appropriately assume it and should mention it clearly.**

Q1. State whether the following statements are TRUE or FALSE. (10)

1. Session layer is concerned with the syntax and semantics of the information transmitted.
2. Microwaves, satellites are guided transmission media.
3. Outgoing acknowledgements are delayed in piggybacking.
4. The best we can hope for using slotted ALOHA is 37% of the slots empty.
5. Limited contention protocols use a collision free technique.
6. Congestion control is difficult in virtual circuit network.
7. The count to infinity problem is associated with distance vector routing.
8. LISTEN primitive means block until a DATA packet arrives.
9. IS-IS is a link state protocol.
10. TCP uses three way handshake to establish connections.

Q2. A. Explain Open Systems Interconnection reference model. (06)

B. Describe Electromagnetic spectrum and its uses for communication. (06)

Q3. A. Write simplex stop and wait protocol for an error free channel. (06)

B. Explain the algorithm for computing the CRC with an example. (06)

Q4. A. Derive an expression for the throughput in slotted ALOHA system. (06)

B. What is switched Ethernet? (06)

Q5. A. How does distance vector routing algorithm work in computer network? (06)
B. Explain the design Explicit Congestion Notification for Congestion control. (06)

Q6. A. What are different combinations of client and server strategies in crash recovery? (06)
B. Describe the example service primitives in a simple transport protocol. (06)

Q7. A. Draw and explain architecture of the email system. (06)
B. Write a note on- 'The World Wide Web'. (06)

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