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13MCA31

Third Semester MCA Degree Examination, June/July 2017
Computer Networks

Time: 3 hrs.

Max. Marks:100

Note: Answer any FIVE full questions.

- 1 a. What are the uses of computer networks? What are the social issues associated with it? Explain. (10 Marks)
- b. Explain TCP/IP reference model. (10 Marks)
- 2 a. Explain analog and digital transmission. Which is the preferred method of transmission? Give reasons for its preference. (10 Marks)
- b. Explain different types of transmission impairments. (10 Marks)
- 3 a. Explain different types of wireless transmission media. (10 Marks)
- b. Explain baseband transmission. (10 Marks)
- 4 a. Explain:
 - i) Binary convolutional codes;
 - ii) Reed Solomon code.
 Where are they used? (10 Marks)
- b. What is piggybacking? Explain sliding window protocol for window of size 1. (05 Marks)
- c. Explain protocol using goback n. (05 Marks)
- 5 a. Explain hidden terminal and exposed terminal problem. How this problem is tackled using MACA protocol? Explain. (10 Marks)
- b. Explain piconets and Bluetooth protocol stack. (10 Marks)
- 6 a. Explain count to infinity problem. (06 Marks)
- b. Explain hierarchical routing. (06 Marks)
- c. Explain routing in ad-hoc networks. (08 Marks)
- 7 a. Explain TCP header. (10 Marks)
- b. Explain four scenarios of releasing connection using three way handshake. (10 Marks)
- 8 a. Explain architecture of the email system. (10 Marks)
- b. Explain server farms and web proxies. (10 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
 2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.