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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.