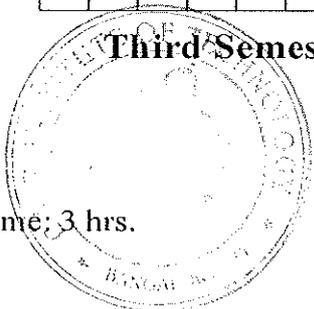


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13MCA31



**Third Semester MCA Degree Examination, June/July 2016**

**Computer Networks**

Time: 3 hrs.

Max. Marks: 100

**Note: Answer any FIVE full questions.**

- 1 a. Discuss LAN and PAN. (10 Marks)  
b. With a figure explain TCP/IP reference model. (10 Marks)
- 2 a. Explain Transmission Impairments. (10 Marks)  
b. Discuss Nyquist Bandwidth and Shannon capacity Formula. (10 Marks)
- 3 a. Write a note on fiber cables and also compare fiber optics and copper wire. (10 Marks)  
b. With examples, explain How Digital modulation is accomplished with passband transmission. (10 Marks)
- 4 a. Write the algorithm to compute CRC. Calculate the CRC for a frame 1101011111 using the Generator  $G(x) = x^4 + x + 1$ . (10 Marks)  
b. Explain a simplex stop and wait protocol for a noisy channel. (10 Marks)
- 5 a. Explain the following collision free protocols.  
i) A Bit-Man protocol  
ii) Token passing (10 Marks)  
b. With illustration explain distance vector Routing. (10 Marks)
- 6 a. Briefly explain the different feedback mechanisms used in Traffic Throttling congestion control approach. (10 Marks)  
b. Discuss IPV4 protocol. (10 Marks)
- 7 a. Explain TCP connection establishment and TCP connection release. (10 Marks)  
b. With a figure discuss Remote procedure call. (10 Marks)
- 8 Write short notes on the following :  
a. DNS  
b. www  
c. Fast Ethernet  
d. Wireless LAN (20 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.