

CBCS SCHEME

16/17MCA31



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Third Semester MCA Degree Examination, Jan./Feb. 2021

Computer Networks

Time: 3 hrs.

Max. Marks: 80

Note: Answer FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. Explain TCP/IP reference model. (08 Marks)
b. What do you mean by transmission impairments? Which are the different types of transmission impairments? Explain them. (08 Marks)

OR

- 2 a. Explain FDM and TDM. (08 Marks)
b. Explain First-Generation (1G) mobile phones. (08 Marks)

Module-2

- 3 a. Explain simplex stop and wait protocol for a noisy channel. (08 Marks)
b. Explain protocol using go-back-N. (08 Marks)

OR

- 4 a. Explain Bit-Map protocol and token passing protocol. (08 Marks)
b. What is hidden terminal and exposed terminal problem? Explain MACA (Multiple Access with Collision Avoidance) protocol. (08 Marks)

Module-3

- 5 a. Compare datagram network and virtual circuit network. (04 Marks)
b. Explain count to infinity problem. (04 Marks)
c. Explain link state routing. (08 Marks)

OR

- 6 a. Explain Leaky Bucket and Token Bucket algorithms. (08 Marks)
b. Explain tunneling. (08 Marks)

Module-4

- 7 a. Explain UDP header. (05 Marks)
b. Explain Remote Procedure Call. (05 Marks)
c. What do you mean by jitter? How do you control jitter? Explain. (06 Marks)

OR

- 8 a. Explain TCP connection establishment and TCP connection release. (08 Marks)
b. Explain TCP sliding window. (08 Marks)

Module-5

- 9 a. Explain the architecture of electronic mail. (08 Marks)
b. Explain server forms and web proxies. (08 Marks)

OR

- 10 Write short notes on the following:
a. MIME
b. HTTP
c. SIP
d. Content delivery networks. (16 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.