

Roll No

MCA-305
M.C.A. III Semester
Examination, November 2019
Computer Networks
Time : Three Hours

Maximum Marks : 70

- Note:* i) Attempt any five questions.
ii) All questions carry equal marks.

1. a) Why Modulation is needed? Compare different modulation techniques.
b) Give a layered network architecture of computer network.
2. a) What is ALOHA protocol? Explain and differentiate pure and slotted ALOHA.
b) Give an overview of carrier sense multiple access with collision detection (CSMA/CD).
3. a) What do you mean by error detection? An 8 bit with binary value 10101111 is to be encoded using an even-parity hamming code. What is the binary value after encoding?
b) Differentiate Stop and wait protocol and Go-back-n protocol.
4. a) Explain the terms Token Ring and Piggy backing.
b) Give an overview of FDDI protocol.

5. Explain following Inter networking devices
 - a) Repeater
 - b) Bridges
 - c) Routers
 - d) Gateways
6. a) Differentiate Broadcast, Unicast and Multicast Routing.
b) What is Routing? Explain Bellman-Ford algorithm in detail.
7. a) Write down the function of Transport layer and differentiate UDP and TCP.
b) Explain various classes of IP addresses in terms of their Network-ID bits, host-ID bits, No. of possible host, No. of possible network and range for each class.
8. Write short notes on any two
 - a) DNS
 - b) Network security
 - c) Sliding window protocols

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