

Total No. of Questions :8]

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Roll No

MCADD-402

M.C.A. (Integrated Course), IV Semester

Examination, May 2019

Fundamental of Computer Networks

Time : Three Hours

Maximum Marks : 70

Note: i) Attempt any five questions.

ii) All questions carry equal marks.

1. a) Compare circuit-switching, message switching and packet switching methods.
b) What is the difference between a bus backbone and a star backbone?
2. a) Briefly explain the cyclic redundancy check error detection scheme. Prove the validity of the scheme?
b) Explain IEEE 802.11 MAC. How does it work for reliable data delivery, access control, and security?
3. a) What are different goals of routing algorithms in a packet switched network? How will you classify the routing algorithms? Mention the advantages of distance vector routing over flow-based routing.
b) What is congestion? How is it caused? What is done to overcome it? What are the preemptive measures taken to avoid the traffic congestion in the networks?

4. a) Explain how TCP is used to add connection-oriented reliable feature to the service of IP.
b) Compare the TCP header and UDP header. List the field in the TCP header that is missing from UDP header. Give the reason for their absence.
5. a) What do you understand by HTTP protocol. Explain its working. At which layer does it operate.
b) What do you mean by URL and Internet address? How is URL mapped into a internet address during web access.
6. a) Describe the ALOHA protocols and its shortcoming. How slotted ALOHA improves situations.
b) What is the difference between delivery of a frame in the data link layer and delivery of the packet in the networks layer.
7. a) What are various advantages of layered architecture? Explain the unified view of layers, protocols, and services for the development of OSI model and TCP/IP model.
b) Explain various network topologies and give their merits and demerits.
8. a) What are the difference between IPV4 IPV6.
b) Discuss Bellmon ford algorithm.
