Roll No ....

MCADD-402

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

Examination, June 2022

Foundation of Computer Networks

Time : Three Hours

Maximum Marks : 70

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

1. a) Explain OSI reference model.
   b) Discuss the advantages of star, ring and Bus topology.

2. a) What is topology? Discuss key topologies used to form a network.
   b) Which device will you prefer to form a network 'HUB' or 'SWITCH'? Justify your answer.

3. a) What are the advantages of twisted pair? Explain shielded and unshielded twisted pair.
   b) What are the characteristics of Optical fibre?

4. a) What is ALOHA protocol? Explain and differentiate between pure ALOHA and slotted ALOHA? What is vulnerable time in pure ALOHA.
   b) Differentiate slop and wait protocol and Go-Back-N protocol.

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) What is leaky bucket algorithm? Where it is used?

   b) What is UDP? How it is different from TCP?

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. Write short notes on any two:
   a) Electronic mail
   b) Cryptography
   c) Token Ring
   d) FDDI

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