H-95-21

Roll No. ....

ANNUAL EXAMINATION, 2021

B.C.A. II

B.C.A. 204

Paper IV

(Computer Networks)

Time : 3 Hours]   [Maximum Marks : 80

Note : *Attempt any two parts from each unit. All questions carry equal marks.*

Unit-I

1. (a) What do you understand by data communication ? Explain various components of data communication.

   (b) What is topology ? Describe various types of topology in computer network with example.

   (c) Explain the concept of LAN, MAN, WAN and inter network in detail.

Unit-II

2. (a) Explain serial and parallel digital transmission with example.

   (b) What is the meaning of term modem ? Explain various modem standards.

   (c) Write short notes on the following :

      (i)   Analog and digital transmission,

      (ii) Data Circuit terminating equipment.

Unit-III

3. (a) Explain Layered architecture in detail.

   (b) Describe the functions of physical and data link layer in OSI model.

   (c) Explain presentation and application layer.

Unit-IV

4. (a) Explain comparison between OSI and TCP/IP model.

   (b) What is protocol ? Describe various protocol used in computer network.

   (c) Write short note on the following :

      (i)   ARPANET,

      (ii) Client-server model.

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Unit-V

5. (a) What is network security ? Explain various net-work security measures.

(b) Explain traditional ciphers and simple modern ciphers with example.

(c) What do you understand by asymmetric key cryptography with suitable example.

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