

P-842

Total Pages : 4

Roll No.

BCA-14

Data Communication and Computer Networks

Bachelor of Computer Application (BCA)

5th Semester Examination, 2023 (June)

Time : 2 Hours]

[Max. Marks : 70

Note : This paper is of Seventy (70) marks divided into two (02) Sections A and B. Attempt the questions contained in these sections according to the detailed instructions given therein. Candidates should limit their answer to the questions on the given answer sheet. No additional (B) answer sheet will be issued.

SECTION-A

(Long Answer Type Questions)

Note : Section 'A' contains Five (05) long answer type questions of Nineteen (19) marks each. Learners are required to answer any Two (02) questions only.

(2×19=38)

1. Answer the following :

(a) What is an Ethernet? What are its basic features? (4)

- (b) Explain various types of Ethernet. (6)
- (c) Explain Framer Format : IEEE 802.3, IEEE 802.4, IEEE 802.5. (9)

2. Answer the following :

- (a) What is repeater? (2)
- (b) What is Hub? (3)
- (c) What is bridge ? (3)
- (d) What is a Switch ? (3)
- (e) What is a Gateway? (3)
- (f) What are layer 2 and layer 3 switches? (5)

3. Answer the following :

- (a) What is Network Interface Card (NIC)? (3)
- (b) Define Network Adapters? (3)
- (c) What are the various Components of NIC? (6)
- (d) What are the Functions of NIC? (4)
- (e) List and explain various types of NIC. (3)

4. Answer the following :

- (a) Explain ISO-OSI Reference Model in detail. (10)
- (b) Compare ISO-OSI and TCP/IP Model. (9)

5. Write a short note on the following :

- (a) IP Address. (3)
- (b) Web Browser. (3)
- (c) ISP. (4)
- (d) Uniform resource Locator. (2)
- (e) DNS. (3)
- (f) World Wide Web. (4)

SECTION-B

(Short Answer Type Questions)

Note : Section 'B' contains Eight (08) short answer type questions of Eight (08) marks each. Learners are required to answer any Four (04) questions only. (4×8=32)

1. Explain Electromagnetic Spectrum for Wireless Communication in detail.
2. Explain the difference between Passive and Active Hubs.
3. Explain various propagation modes in fiber optics in detail.
4. What is an Internet Service Providers (ISP)? What are its various types? Explain.
5. What is an IP address? Explain different classes of IP address.

6. What is the difference between synchronous and asynchronous communication?
 7. What is Bluetooth? Explain different layers of Bluetooth.
 8. What are the essential elements of network architecture? Explain.
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