

Roll No.

Total No. of Pages : 02

Total No. of Questions : 07

BCA (Sem.-3)
COMPUTER NETWORKS
Subject Code : UGCA-1913
M.Code : 78179

Date of Examination : 20-12-2024

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.

SECTION-A

1. Write briefly :

- a) Analog
- b) Modem
- c) MAN
- d) Ring vs Mesh
- e) Switch line
- f) PPP
- g) Flow control
- h) CDMA
- i) Buffering
- j) FTP

SECTION-B

2. What is Unguided Network Media? Explain its types, merits and demerits.
3. Explain different types of error detection and error correction methods with example.
4. Discuss various routing algorithms.
5. What is OSI reference model? Compare it with TCP/IP model.
6. Differentiate between circuit, message and packet switching.
7. Define frame. Explain the services provided by data link layer.

NOTE : Disclosure of Identity by writing Mobile No. or Marking of passing request on any paper of Answer Sheet will lead to UMC against the Student

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BCA (Sem.-3)
COMPUTER NETWORKS

Subject Code : UGCA-1913

M.Code : 93331

Date of Examination : 20-12-2024

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.

SECTION-A

1. Write briefly:

- a) Differentiate between Synchronous and Asynchronous communication.
- b) Write at least two advantages of optical fiber as a transmission medium.
- c) Differentiate between Frequency Division Multiplexing and Time Division Multiplexing.
- d) What do you understand by Flow control?
- e) What is the role of CSMA/CD?
- f) What do you mean by congestion? Also explain the cause of congestion.
- g) What do you understand by Internetworking?
- h) List the design issues of Session Layer.
- i) Differentiate between TCP and UDP Protocols.
- j) Explain the term Domain Name System (DNS) in brief.

SECTION-B

2. Explain various network topologies along with their advantages and disadvantages.
3. Write a detailed note on following transmission media :
 - a) Telephone Lines (3)
 - b) Leased Lines (4)
 - c) Switch line (3)
4. Write a detailed note on following Protocols
 - a) PPP (5)
 - b) SLIP (5)
5. Write a detailed note on OSI Reference Model.
6. Write a detailed note on IEEE 802.4 Token Bus.
7. a) Write a detailed note on Design issues of Transport Layer.
b) Write a detailed note on Data Compression techniques in reference to Presentation Layer.

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