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Total No. of Pages : 02

Total No. of Questions : 09

MCA (Sem.-3)
ADVANCED COMPUTER NETWORKING
Subject Code : PGCA-1925
M.Code : 90798
Date of Examination : 16-12-2022

Time : 3 Hrs.

Max. Marks : 70

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION - B & C. have FOUR questions each.
3. Attempt any FIVE questions from SECTION B & C carrying TEN marks each.
4. Select atleast TWO questions from SECTION - B & C.

SECTION-A

1. Answer the following :

- a) State the working principle of Stop & Wait ARQ protocol.
- b) What do you mean by congestion in computer network?
- c) What are the limitations of a layered architecture in computer networks?
- d) What are the key principles and issues of mobile networks?
- e) List the distinct features of 4G wireless communication technology as compared to 3G.
- f) What do you mean by dynamic channel allocation?
- g) Mention some handoff strategies used in wireless systems.
- h) What do you mean by World Wide Web (WWW)?
- i) What is CDMA?
- j) What is the role of checksum at data link layer?

SECTION-B

2. How TCP/IP reference model is different from OSI model? List the similarities and differences between the two models.
3. List and explain various guided and unguided media used for data communication in computer networks.
4. Explain the process of connection establishment and connection release in TCP protocol.
5. Discuss the working of distance vector routing algorithm with an example.

SECTION-C

6. Discuss the structure and major components of a cellular network. How ad hoc network is different from cellular network.
7. List and explain various MAC protocols used in ad hoc networks with suitable example.
8. What are the mechanisms used to improve coverage and capacity in a cellular network Explain in detail.
9. **Write short notes on:**
 - a. Frequency reuse
 - b. IEEE 802.11

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.