BACHELOR OF COMPUTER APPLICATIONS (CBCS - 2018 COURSE)
B.C.A. Sem-IV : WINTER- 2022
SUBJECT : COMPUTER NETWORKS

Day : Monday   Time : 02:00 PM-05:00 PM

Date : 28-11-2022   **W-18777-2022**   Max. Marks : 60

N.B.
1) Question. 4 is **COMPULSORY.**
2) Answer **ANY TWO** questions from Q.1,2,3 in Section-I.
3) Answer **ANY TWO** questions from Q.5,6,7 in Section-II.
4) Answer to both the sections should be written in **SAME** answer book.
5) Figures to the **RIGHT** indicates **FULL** marks.
6) Draw a labeled diagram **WHEREVER** necessary.

SECTION I

Q.1 a) Differentiate between: Guided transmission media and unguided transmission media. **(06)**

b) Explain the terms: **(06)**
   i) Bandwidth
   ii) Throughput
   iii) Sub-netting

Q.2 a) Explain the switching techniques in brief. **(06)**

b) Discuss shortest path routing protocol in detail. **(06)**

Q.3 a) What is token? Explain token concept in brief. **(06)**

b) Describe design issues for wireless sensor networks. **(06)**

Q.4   Write Short Notes on **ANY THREE** of the following: **(12)**
   a) Client-Server Architecture
   b) MANET
   c) Fiber optics
   d) Ethernet
   e) Jitter control

SECTION II

Q.5 a) What are the advantages of using UDP over TCP? **(06)**

b) Explain the functionalities of transport layer? **(06)**

Q.6 a) What is the differences between Unicasting, Multicasting and Broadcasting. **(06)**

b) Differentiate between IPV4 and IPV6 addressing schemes. **(06)**

Q.7   ABC organization has decided to build a local area network of 200 computers. **(12)**
As a network administrator, Give the minimum requirement to build this network. Which topology will you prefer? Why?

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