

**INTEGRATED MASTER OF COMPUTER APPLICATIONS (CHOICE BASED
CREDIT SYSTEM)**

**I.M.C.A. Sem-VII : WINTER : 2021
SUBJECT: COMPUTER NETWORKS**

Day : Monday
Date : 24-01-2022

W-10085-2021

Time : 10:00 AM-01:00 PM
Max. Marks: 100

N.B.

- 1) Attempt any **FOUR** questions from Section – I and any **TWO** questions from Section – II.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answers to both the sections should be written in the **SAME** answer book.

SECTION – I

- Q.1** What is Computer Network? List various network topologies. Explain any one in detail. (15)
- Q.2** Explain synchronous and asynchronous transmission with the help of examples. (15)
- Q.3** What is TCP/IP? Compare TCP/IP with OSI model. (15)
- Q.4** What is the functionality of presentation layer? Explain message Authentication in presentation layer. (15)
- Q.5** What is Wireless Sensor Network? List its applications. Also discuss its design issues. (15)
- Q.6** What is routing? Explain distance vector routing in detail. (15)
- Q.7** Write short notes on **ANY THREE** of the following: (15)
- a) Mobile telephone systems
 - b) SMTP
 - c) IP address classes
 - d) Signal measurement

SECTION – II

- Q.8** What are different mobile generations? Compare all mobile generations based on various parameters like multiplexing used, switching technique used, technology, speed, topology, applications and bandwidth requirements. (20)
- Q.9** XYZ company has a computer network with Class B address: 172.16.0.0. Now they have decided to expand their business to 15 branches. Create different subnet addresses and host IDs for each subnet. (20)
- Q.10** Explain any four protocols from following: IGMP, ICMP, MIME, POP, HTTP and IMAP. (20)

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