

MASTER OF COMPUTER APPLICATIONS (CBCS - 2020 COURSE)

M.C.A. Sem-I : WINTER- 2022

SUBJECT : COMPUTER NETWORKS

Day : Thursday

Time : 10:00 AM-01:00 PM

Date : 1/12/2022

W-22722-2022

Max. Marks : 60

N.B.:

- 1) **Q. No. 4 is COMPULSORY.**
- 2) Answer any **TWO** questions from **Q. No. 1, 2 & 3.**
- 3) Answer any **TWO** questions from **Q. No. 5, 6 & 7.**
- 4) Figures to the right indicate **FULL** mark
- 5) Answers to both the sections should be written in **SAME** answer book.
- 6) Draw neat labelled diagrams **WHEREVER** necessary.

SECTION-I

- Q.1** Answer the following:
- a) Define Computer Network. Explain goals of Network. **(06)**
 - b) Explain the types of transmission media and their characteristics. **(06)**
- Q.2** Answer the following:
- a) Differentiate between message switching and packet switching. **(06)**
 - b) What is the importance of Multiplexing? Explain FDM in detail. **(06)**
- Q.3** Answer the following:
- a) What is Link State Routing? Explain advantages of Link State Routing. **(06)**
 - b) Explain Throughput, wavelength and frequency. **(06)**
- Q.4** Write short notes on any **THREE** of the following: **(12)**
- a) X. 25
 - b) Bluetooth
 - c) WWW
 - d) Ethernet
 - e) Data security
 - f) LAN

SECTION-II

- Q.5** Answer the following:
- a) What is functionality of application layer? Explain at least two protocols used in application layer. **(06)**
 - b) What is Network software? Explain different design issues for layered architecture. **(06)**
- Q.6** Answer the following:
- a) Explain various IP address classes with the help of example. **(06)**
 - b) Explain the characteristics of Internet, Intranet and extranet. **(06)**
- Q.7** Answer the following:
- a) Identify the classes of IP address **(06)**
 - i) 227.12.14.87
 - ii) 193. 14. 56. 22
 - iii) 14.23. 72. 8
 - iv) 134. 11. 78.56
 - v) 224. 220. 24. 6
 - vi) 192. 168. 1.1
 - b) Discuss the various technical issues of Advanced Network. **(06)**

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