

MASTER OF COMPUTER APPLICATIONS (CBCS - 2020 COURSE)

M.C.A. Sem-I : WINTER : 2021

SUBJECT: COMPUTER NETWORKS

Day : Tuesday
Date : 18-01-2022

W-22722-2021

Time : 02:00 PM-05:00 PM
Max. Marks: 60

N.B.

- 1) Q.No. 4 from Section I 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) All questions carry **EQUAL** marks.
- 5) Answer to both the sections should be written in **SAME** answer book.
- 6) draw a labeled diagram **WHEREVER** necessary.

SECTION – I

- Q.1** Answer the following : (6 marks x 2 = 12 marks)
- a) Compare Connection Oriented and Connection less services.
 - b) Explain in brief OSI model with the help of neat diagram.
- Q.2** Answer the following : (6 marks x 2 = 12 marks)
- a) What is the importance of Multiplexing? Explain FDM in detail.
 - b) What is Synchronous and Asynchronous transmission?
- Q.3** Answer the following : (6 marks x 2 = 12 marks)
- a) What is Distance Vector Routing? Explain disadvantages of Distance Vector Routing.
 - b) Explain different IP Address classes.
- Q.4** Write short notes on **ANY THREE** of the following : (4 marks x 3 = 12 marks)
- a) Analog and digital signals
 - b) LAN
 - c) ICMP
 - d) IPv6
 - e) Ethernet
 - f) Throughput

SECTION – II

- Q.5** Answer the following : (6 marks x 2 = 12 marks)
- a) Discuss various technical issues of Advanced networks.
 - b) What are Mobile Ad hoc Networks? Explain applications of MANETs.
- Q.6** Answer the following : (6 marks x 2 = 12 marks)
- a) Explain various generations of Mobile Telephone Systems.
 - b) What is Mobile-IP? Explain the advantages of Mobile-IP.
- Q.7** Answer the following : (6 marks x 2 = 12 marks)
- a) Specify the IP address class of following IPs :-
 - i) 120. 20. 20. 10
 - ii) 134. 20. 40. 13
 - iii) 180. 10. 10. 15
 - iv) 196. 10. 20. 16
 - v) 10. 10. 10. 10
 - vi) 224. 220. 230. 6
 - b) Explain following protocols in detail
 - i) FTP
 - ii) HTTP
 - iii) IMAP
