

CDOE
MASTER OF COMPUTER APPLICATIONS (CBCS-2019 COURSE)
M.C.A. SEM - III : WINTER :- 2021
SUBJECT: COMPUTER NETWORKS

Day : Tuesday
Date 15-02-2022

W-22223-2021

Time : 10:00 AM-01:00 PM
Max. Marks: 60

N.B.:

- 1) Q 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) Answers 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)

- a) Perform a comparative study between TCP/IP and OSI.
- b) What is link state routing algorithm? Explain with the help of neat diagram.

Q.2) Answer the following: (6 Marks X 2 = 12)

- a) What are advantages of Wireless Media over Guided Media? Discuss Unguided Media in detail.
- b) What is the purpose of Multicast and Broadcast addresses?

Q.3) Explain the following: (6 Marks X 2 = 12)

- a) What is DNS? Explain the role of Nameserver in DNS.
- b) What is Difference between persistent and non-persistent HTTP? Also explain HTTP request header.

Q.4) Write short notes on the following (ANY THREE): (4 Marks X 3 = 12 Marks)

- a) Network Protocols
- b) Analog and Digital Transmission
- c) Dynamic Routing
- d) IGMP
- e) Delegating Authority
- f) MIME
- g) Wireless Sensor Networks

SECTION - II

Q.5) Answer the following: (6 Marks X 2 = 12)

- a) Discuss problems of channel allocation? What are different Multiplexing techniques used for channel allocation.
- b) A network on the internet has a subnet mask of 255.255.240.0. What is the maximum number of host it can handle? Give the range of subnet IDs and host IDs in each subject.

Q.6) Answer the following: (6 Marks X 2 = 12)

- a) What is DNS? Explain with suitable example process of delivering of requested web page on your computer?
- b) Explain the E-mail architecture and services?

Q.7) Explain the following: (6 Marks X 2 = 12)

- a) What are the types of Wireless networks? Explain with example.
- b) How Congestion impact on network performance? Discuss various Congestion Control policies.
