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Total No. of Printed Pages: 1

Total No. of Questions: [11]

MCA (Semester – 1st)
COMPUTER NETWORKS
Subject Code: MCAPS1-101
Paper ID: [20270101]

Time: 03 Hours

Maximum Marks: 60

Instruction for candidates:

1. Section A is compulsory. It consists of 4 questions of 4 marks each. It carries 16 marks.
2. Section B consist of 4 questions of 8 marks each. The student has to attempt any 3 questions out of it.
3. Section C consist of 3 questions of 10 marks each. The student has to attempt any 2 questions.

Section – A

(4 marks each)

- Q1. Write a short note on the following:
(a) DNS (b) UDP
- Q2. Change the following IPv4 Addresses from dotted decimal binary notation.
(a) 111.56.45.78 (b) 221.34.7.82
- Q3. What is data link on protocol discuss is types as well.
- Q4. Describe the sliding window protocol using Go back N.

Section – B

(8 marks each)

- Q5. Explain the functions, protocols & service of each layer in OSI Reference Model.
- Q6. Explain the operator of the BIF oriented protocol HDLC with the required frame.
- Q7. Explain the function of ARP & RARP.
- Q8. How do control and buffering takes/lace at transport layer. Explain with the help of a suitable example.

Section – C

(10 marks each)

- Q9. Explain in detail about function & Structure of Email Protocol.
- Q10. The following character encoding is used in a data link protocol:
A: 01000111; B: 11100011; FLAG: 01111110; ESC: 11100000
Show the bit sequence transmitted (in binary) for the four-character frame: A
B ESC FLAG when each of the following farming methods are used:
i. Character Count
ii. Flag bytes with byte stuffing
iii. Starting and ending flag bytes, with bit stuffing.
- Q11. Write short notes on
a. Packet Switching
b. Message Switching
c. Circuit Switching