Roll No……..….. **Total No. of Printed Pages: [01]**
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 carries 16 marks. It consists of 4 questions of 4 marks each.
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. Explain in detail various network technologies.

Q2. Differentiate between circuit, message and packet switching.

Q3. Describe briefly polling and token passing.

Q4. What is DNS? Explain its use.

Section – B **(8 marks each)**

Q5. Explain in detail various transmission impairments.

Q6. Discuss in detail concepts of layers, protocols, interfaces and services.

Q7. Describe leaky bucket and token bucket algorithm.

Q8. Write note on multiplexing, de-multiplexing, flow control and buffering.

Section – C **(10 marks each)**

Q9. Explain TCP/IP reference model. Also compare it with OSI reference model.

Q10. What is error detection and correction? Explain sliding window protocols.

Q11. Describe IPv4, subnetting, distance vector and link state routing algorithms.