# MMT-001(P) (Set-2)

## M.Sc. (Mathematics with Applications in Computer Science) (MSCMACS)

### Programming and Data Structures

Duration: 2 hours                                    Maximum Marks: 50

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Note:   1.   There are two questions in this paper. Answer both of them. They carry 40 marks.

2.   Rest 10 marks are for viva-voce.

1.      Write a program in C, to calculate the approximate value of sine of a given value of x in radians, using the following formula

$$\sin(x) = x - (\frac{x^3}{3!}) + (\frac{x^5}{5!}) - (\frac{x^7}{7!}) + ........$$                    20

2.      Write a program in C language to create a linked list of integers, insert the node after the $n^{th}$ node, and delete the node after the $n^{th}$ node                    20

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