

**M.Sc. (MATHEMATICS WITH APPLICATIONS IN COMPUTER SCIENCE)
M.Sc. (MACS)**

00210

Term-End Practical Examination

June, 2017

MMT-001(P) : PROGRAMMING AND DATA STRUCTURES

Time : 2 Hours

Maximum Marks : 50

Note : (i) *There are two questions in this paper, totalling 40 marks.*

(ii) *Answer both of them.*

(iii) *Remaining 10 marks are for viva-voce.*

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1. Write a program in 'C' to implement a singly linked list of 'Names' and 'Ages' of different persons. Write a separate function for the following operations : 25
 - Creation of linked list
 - Insert a node at beginning, ending and middle
 - Delete a particular node
 - Display all nodes of a list

 2. Write a 'C' program that evaluates a polynomial at a given value using Horner's method. Your program should prompt for the degree of the polynomial, value at which the polynomial is to be evaluated and print the answer. Use your program to evaluate the polynomial $x^{11} + 7x^9 + 8x^8 + 6x^6 + 5x^4 + 6x^2 + x + 10$ at the point 1.15. 15
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