

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

M.Sc. (MACS)

Term-End Practical Examination

December, 2015

MMT-001(P) : PROGRAMMING AND DATA STRUCTURES

Time : 2 hours

Maximum Marks : 50

Note : *There are **two** questions in this paper, totalling 40 marks. Answer **both** of them. Remaining 10 marks are for the viva-voce.*

1. Write a 'C' program to store the record of names and marks of the students of a class. Your program should include the following functions :
 - ***create_node(...)***, which creates a node with the arguments passed to it and returns the pointer to that node to the calling function.
 - ***add_node_end(...)***, which creates a node using the ***create_node(...)*** function and adds it at the end of the list.
 - ***display(...)***, which displays the contents of the list. 30

 2. Write a 'C' function called ***nth Fibonacci(...)*** which takes a natural number 'n' as its argument, computes the nth Fibonacci number ***iteratively*** and returns the same to the calling function. Also write the main program to test your function. 10
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