SMU SIKKIM MANIPAL UNIVERSITY
DIRECTORATE OF DISTANCE EDUCATION

ASSIGNMENT

DRIVE	**WINTER – 2016**
PROGRAM	**MCA(REVISED FALL 2012)**
SEMESTER	**4**
SUBJECT CODE & NAME	**MCA4040- ANALYSIS AND DESIGN OF ALGORITHM**
BK ID	**B1480**
CREDITS	**4**
MARKS	**60**

Note: Answer all questions. Kindly note that answers for 10 marks questions should be approximately of 400 words.

Q. No.	Question	Marks	Total Marks
1	Write the steps involved in analyzing the efficiency of non-recursive algorithms.	10	10
2	Define selection sort and explain how to implement the selection sort?	3+7	10
3	Define Topological sort. And explain with example.	5+5	10
4	Explain good-suffix and bad-character shift in Boyer-Moore algorithm.	5+5	10
5	Solve the Knapsack problem using memory functions. Item 1 2 3 4 Weight 2 6 4 8 Value (in Rs.) 12 16 30 40 Knapsack capacity is given as W=12. Analyze the Knapsack problem using memory functions with the help of the values given above.	10	10
6	Describe Variable Length Encoding and Huffman Encoding.	5+5	10