RV College of Engineering®, Bengaluru
(Autonomous Institute under VTU, Belagavi)
Department of Master of Computer Applications

CONTINUOUS INTERNAL EVALUATION (CIE)
THIRD SEMESTER
ASSIGNMENT – 1& 2 SECTION - A
COURSE: 18MCA32 COURSE TITLE: ANALYSIS AND DESING OF ALGORITHMS

Max. Marks: 30

Instructions to the Students

- **Answer the questions 1, 2, and 4 in the blue book**
- **Demo of question 3 should be shown to the faculty in charge for the given Problems and paste the printout out the implementation in the blue book**

Sl.No	Question	Marks	CO	BTL
1	Identify the design techniques used to solve the given problem	4	1	L1,L2
2	Analyze and obtain the time complexity of the problem for the identified design techniques	8	2	L3,L4
3	Implement and Demonstrate the problem	10	3	L4
4	Justify and Evaluate the different identified design techniques	8	4	L5

Group 1: USN 1RV18MCA 01-03
Fibonacci Series using Dynamic Programming

Group 2: USN 1RV18MCA 04-06
Fibonacci Series using Recusive Algorithm

Group 3: USN 1RZ18MCA 08-10
Red Black Tree Algorithm

Group 4: USN 1RV18MCA 11-13
Travelling Salesperson Problem using Dynamic Programming

Group 5: USN 1RV18MCA 14-16
Knapsack problem (using Greedy Method)

Group 6: USN 1RV18MCA 17-19
0/1 Knapsack problem (using Dynamic Programming)

Group 7: USN 1RV18MCA 20-22
Tower of Honai using Recusive Algorithm

Group 8: USN 1RV18MCA 23-25
Splay Tree Algorithm

Group 9: USN 1RV18MCA 26-28

AVL Tree Algorithm

Group 10: USN 1RV18MCA 29-31
Radix Tree Algorithm

Group 11: USN 1RV18MCA 32-34
Breadth-First Search Algorithm

Group 12: USN 1RV18MCA 35-37
Depth-First Search Algorithm

Group 13: USN 1RZ18MCA 38, 39, 41
N Queen's Problem

Group 14: USN 1RV18MCA 43-45
B Tree Algorithm

Group 15: USN 1RV18MCA 45-47
B+ Tree Algorithm

Group 16: USN 1RV18MCA 48, 49, RD18MCA01
Heap Tree Algorithm

Group 17: USN 1RD18MCA2 -4
Hamiltonian Circuit Problemng

Group 18: USN 1RD18MCA 5-7
Branch and Bound-Assignment Problem

Group 19: USN 1RD18MCA08, 09, LE1
Travelling Salesman Problem using Dynamic Programming

Group 20: USN LE2, LE03, LE4,
Travelling Salesman Problem using Branch and Bound Technique

Group 21: USN LE05, LE06, 1RV18MCA07
Strassen's Matrix multiplication

Faculty In-charge: Dr. Manjunath M **Director MCA**