NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA

(An Autonomous Institute)

Affiliated to Dr. A.P.J. Abdul Kalam Technical University, Uttar Pradesh, Lucknow

B.Tech

FIRST YEAR (SEMESTER-II) THEORY EXAMINATION   (2020-2021)

(Subjective Type)

Subject Code: ACSBS0203   Max. Mks. : 30

Subject: <u>Data Structures & Algorithms</u>   Time   : 50 Minutes

<u>General Instructions:</u>

All questions are compulsory.

Question No. 1 to 15 are subjective type question carrying 3 marks each. Attempt any 10 out of 15 questions.

Q.No	Question Content	Question Image	Category	Sub Category	Marks	Options Randomization	Type	Difficulty
1	How an algorithm can be robust?		Attempt any 10 questions	10 x 3=30	3		Subjective	Smart
2	What do you understand by flowchart?		Attempt any 10 questions	10 x 3=30	3		Subjective	Brilliant
3	What are the two main measures for the efficiency of an algorithm?		Attempt any 10 questions	10 x 3=30	3		Subjective	Brilliant
4	What is Circular Linked List?		Attempt any 10 questions	10 x 3=30	3		Subjective	Smart
5	Write advantages of Linked List over an Array.		Attempt any 10 questions	10 x 3=30	3		Subjective	Smart
6	What are the applications of stack?		Attempt any 10 questions	10 x 3=30	3		Subjective	Brilliant
7	What is a binary tree?		Attempt any 10 questions	10 x 3=30	3		Subjective	Smart
8	Define non-linear data structure.		Attempt any 10 questions	10 x 3=30	3		Subjective	Smart

Q.No	Question Content	Question Image	Category	Sub Category	Marks	Options Randomization	Type	Difficulty
9	What is a minimum spanning tree?		Attempt any 10 questions	10 x 3=30	3		Subjective	Brilliant
10	What is a heap?		Attempt any 10 questions	10 x 3=30	3		Subjective	Smart
11	Mention the types of sorting.		Attempt any 10 questions	10 x 3=30	3		Subjective	Brilliant
12	Define hash function?		Attempt any 10 questions	10 x 3=30	3		Subjective	Brilliant
13	What are the methods available in storing sequential files?		Attempt any 10 questions	10 x 3=30	3		Subjective	Brilliant
14	What is a spanning Tree?		Attempt any 10 questions	10 x 3=30	3		Subjective	Smart
15	What is a directed graph?		Attempt any 10 questions	10 x 3=30	3		Subjective	Brilliant