PUNE INSTITUTE OF COMPUTER TECHNOLOGY
DHANKAWADI, PUNE – 43.
Department of Computer Engineering

Academic Year: 2018-19 (Semester-II)

UNIT TEST II

Year: S.E **Subject: Advance Data Structures**

Date:- 03/04/2019 Time: - 1 Hour Max. Marks: - 30

Instructions to the candidates:-

1. Question 5 is compulsory
2. Solve either Q1 OR Q2, Q3 or Q4
3. **Weightage will be given for neat presentation and explanation.**

Question Paper

Q. No.	Question	Marks	Unit No.	COs Covered	POs Covered
1	Construct Binary search tree and Height balanced tree for given data and compare the average number of comparisons required to retrieve any key from it 10, 25, 15, 12, 20, 30, 14, 22, 35, 40	10	04	4	1,9,10
2	Construct the Optimal binary search tree for given data a1, a2, a3, a4, a5 = do, else, if, int, while p1, p1, p3, p4, p5 = 0.4, 0.1, 0.2, 0.15, 0.15 a0, q1, q2, q3, q4, q5 = 0.6, 0.1, 0.4, 0.2, 0.3, 0.4	10	04	4	1,2,3,9, 10,12
3	Discuss all the collision resolution strategies in Hashing with examples.	10	03	3	1,2,3,9,1 0,12
4	Construct B tree of order 3 for following data 30, 31, 32, 23, 22, 28, 24, 29, 26, 27, 34, 36. Delete 24, 26, 23 one by one	10	05	3	1,9,10,12
5	Write an ADT for Min-Heap. Enlist the applications of Heap Data structure. Construct min-heap for following data 10, 12, 1, 15, 6, 5, 8, 14, 9, 3, 7, 4, 13, 11	10	05	1	1,2,3,9,1 0,12