D Monika Bharti.

## JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT TEST-2 EXAMINATION-October, 2018

## M.TechI Semester

COURSE CODE:10M11CI111

MAX. MARKS:25

COURSE NAME: Advanced Data Structures

**COURSE CREDITS: 3** 

MAX. TIME: One and HalfHour

Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means.

Q1. Explain in detail with example of each for trees – quad, R- and interval.

[2.5 \* 3] marks

- Q2. Describe binomial heap explaining each step with the help of example. Give its advantages and disadvantages. [5, 1.5 marks]
- Q3. Explain in detail with the help of example, Tarzan's implementation of Fibonacci heap.

[6 marks]

- **Q4.** Give descriptions for (a) soft heap
  - (b) k-ary tree
  - (c) multisets
  - (d) rank/select

[1.5\*2, 1\*2 marks]