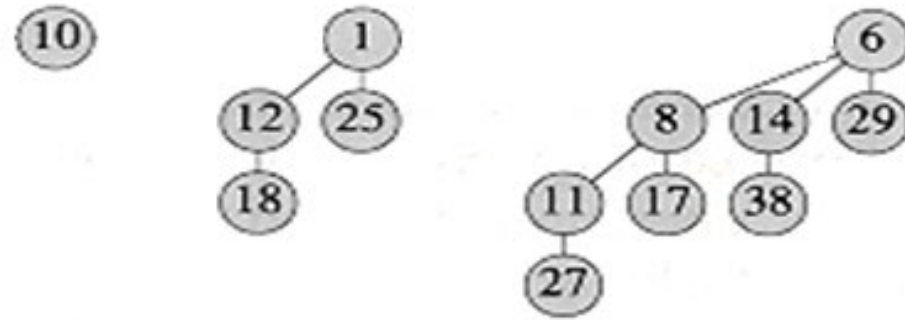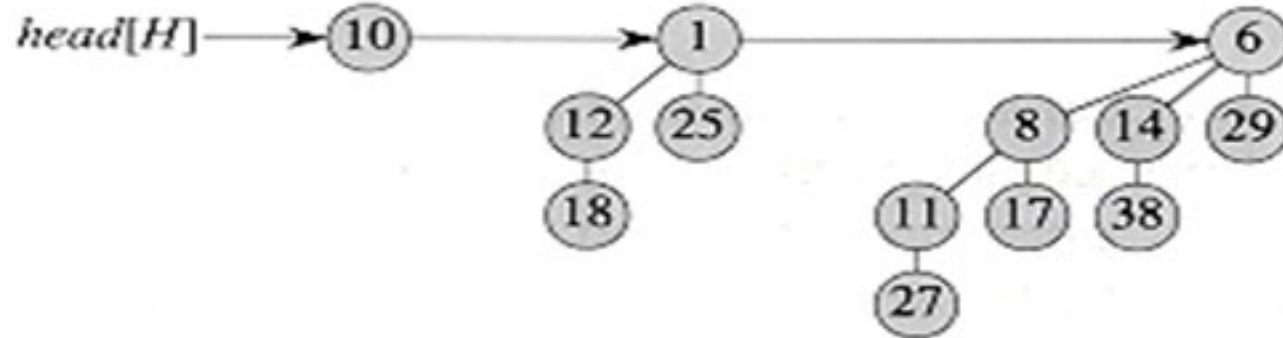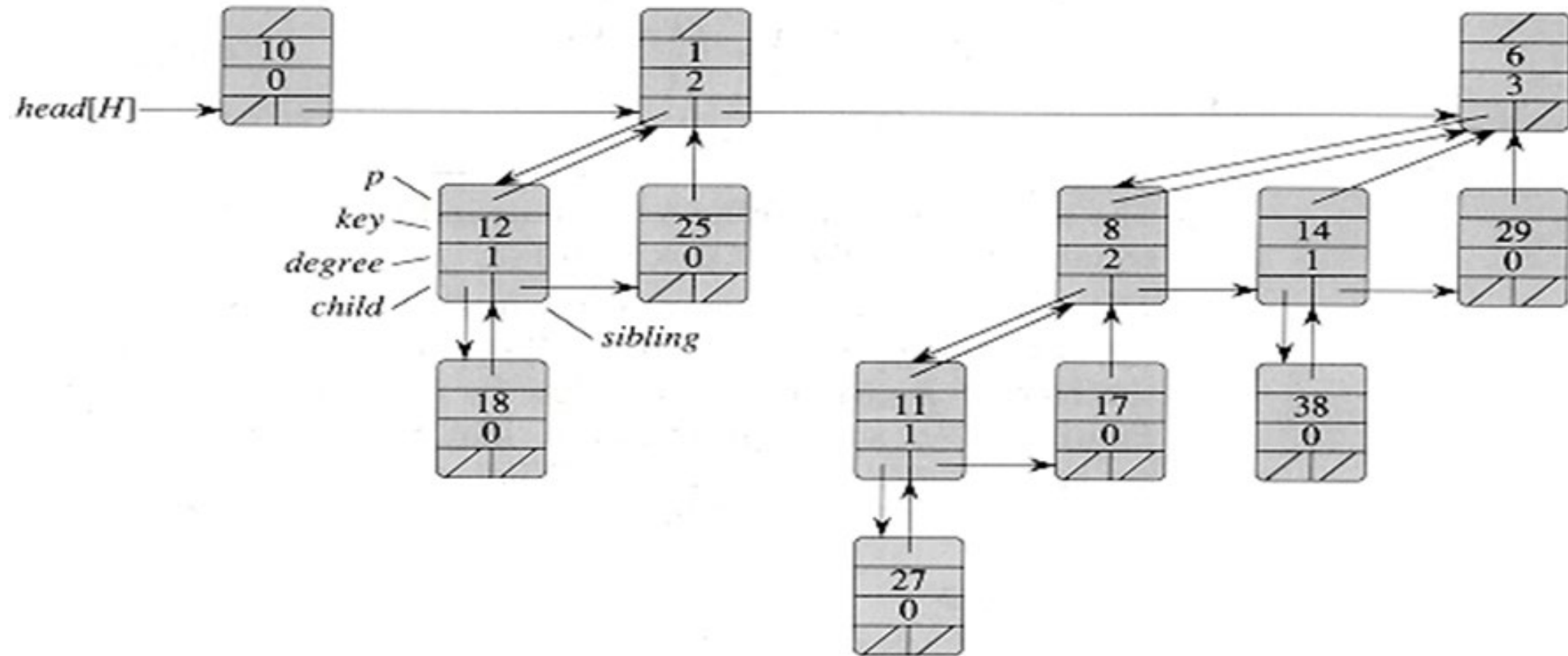# Binomial Heap Implementation (1/4)

All the children of a node need to be linked together
- How?
- In which order?

Binomial Heap Implementation (2/4)

Binomial Heap Implementation (3/4)

Binomial Heap Implementation (4/4)

Heap node structure:
- Parent pointer: points to the parent
- Key: stores the key
- Degree: stores the degree of the subtree rooted at this node. The degree of a binomial tree B_i is i
- Sibling pointer: points to the next sibling
- Child pointer: points to the left most child with the largest degree
- Other fields
  - ➢ Key
  - ➢ Task attributes (name, release time, deadline, execution time)

How to Use Priority Queues to Find A EDF Schedule?

Hints:
- Sorting cannot solve this problem
- Three priority queues are needed:
    - Release time priority queue
        - This queue stores all the tasks where the key of each task is its release time
    - Deadline priority queue
        - This queue stores all the ready tasks where the key of each task is its deadline
    - Scheduling point priority queue
        - This queue stores all the cores where the key of each core is its next available time for executing a task