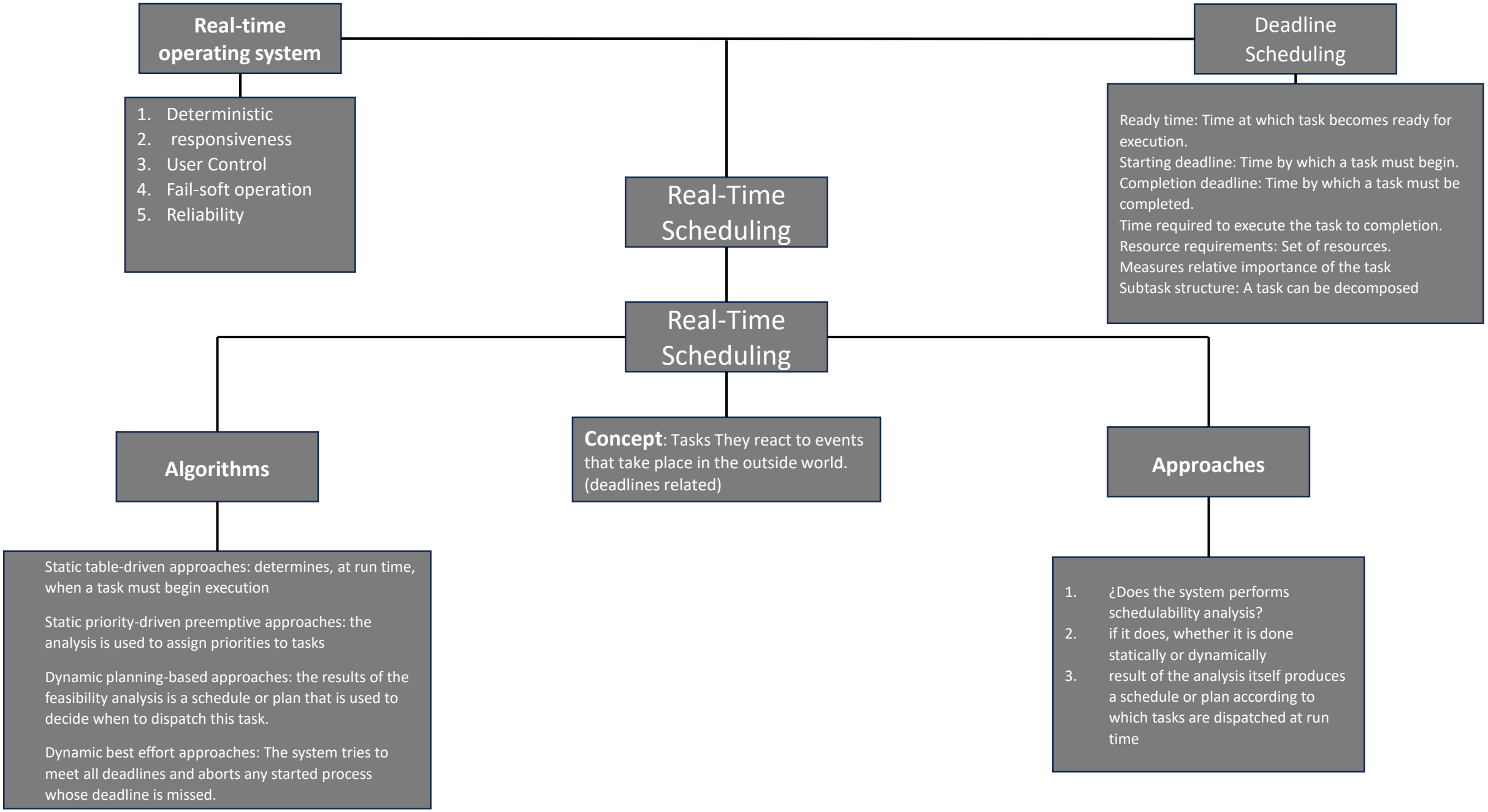
Real-time operating system
1. Deterministic
2. responsiveness
3. User Control
4. Fail-soft operation
5. Reliability
Real-Time Scheduling
Deadline Scheduling
Ready time: Time at which task becomes ready for execution.
Starting deadline: Time by which a task must begin.
Completion deadline: Time by which a task must be completed.
Time required to execute the task to completion.
Resource requirements: Set of resources.
Measures relative importance of the task
Subtask structure: A task can be decomposed
Real-Time Scheduling
Algorithms
Concept: Tasks They react to events that take place in the outside world. (deadlines related)
Approaches
Static table-driven approaches: determines, at run time, when a task must begin execution
Static priority-driven preemptive approaches: the analysis is used to assign priorities to tasks
Dynamic planning-based approaches: the results of the feasibility analysis is a schedule or plan that is used to decide when to dispatch this task.
Dynamic best effort approaches: The system tries to meet all deadlines and aborts any started process whose deadline is missed.
1. ¿Does the system performs schedulability analysis?
2. if it does, whether it is done statically or dynamically
3. result of the analysis itself produces a schedule or plan according to which tasks are dispatched at run time