In class we talked about a queue optimization technique called \textit{backfilling}. However, we actually only discussed one type of backfilling: \textit{aggressive backfilling} (also known as EASY backfilling). Another commonly-used type of backfilling is \textit{conservative backfilling}, described in the attached paper. Read the paper up to (but not including) Section 3 and answer the following questions:

1. Aggressive backfilling only allows a job to skip ahead in the queue if...
   - (a) Queueing delays for all subsequent jobs are bounded.
   - (b) It doesn’t delay the first queued job.
   - (c) It agrees to be cancelled before the start of the first queued job.
   - (d) It does not delay any job ahead of it in the queue.

2. Conservative backfilling only allows a job to skip ahead in the queue if...
   - (a) Queueing delays for all subsequent jobs are bounded.
   - (b) It does not delay any job ahead of it in the queue.
   - (c) It doesn’t delay the first queued job.
   - (d) Conservative backfilling differs from aggressive backfilling in that it does not allow queue-skipping.

3. Conservative backfilling provides more predictability to job start times because...
   - (a) It incorporates algorithms to predict how long jobs will run based on user estimates.
   - (b) It ignores user estimates for job duration.
   - (c) Jobs are scheduled as soon as they’re submitted.
   - (d) None of the above.
4. Conservative backfilling performs better than aggressive backfilling...
   (a) Always.
   (b) Never, but it provides added predictability to job start times.
   (c) Performance is workload-dependent.
   (d) None of the above.

5. Once a job has been scheduled to start at time $t$ using conservative backfilling, it...
   (a) Will start at exactly $t$.
   (b) Will start no later than $t$.
   (c) Can start at any other time.
   (d) Can start at any other time, but only if the schedule is compressed.

6. The complexity of conservative backfilling is...
   (a) Linear.
   (b) Quadratic.
   (c) Linear for job scheduling, and polynomial for schedule compression.
   (d) None of the above.

7. If, upon an early termination of a job, the conservative backfilling did nothing, then...
   (a) Gaps would appear in the schedule.
   (b) No jobs would start before their originally scheduled times.
   (c) There would be no need to invoke the compression algorithm.
   (d) All of the above.