Artificial Intelligence : Optimal Bowling First Strategy

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We want to find the optimal strategy employed by a team bowling first. Consider the following scenario :

- The batting team has 3 wickets and 10 overs.
- The bowling team has 5 bowlers, each of them have exactly 2 overs each.
- The $(economy, strike)$ rates of bowler 1 to bowler 5 are given by $\{(3, 33), (3.5, 30), (4, 24), (4.5, 18), (5, 15)\}$, which means bowler 1 (on an average) takes a wicket every 33 balls bowled, and gives away 3 runs every over.
- The same bowler can bowl two consecutive overs. All the 3 batters are identical.
- Find the best bowling strategy, i.e., to minimize the runs scored.