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The paper is concerned with the production inventory planning in a stochastic manufacturing system with minimizing the expected discounted production cost control problem. We develop the optimal production inventory control problem associated with the reduced (one-dimensional) Hamilton-Jacobi Bellman equation. The analysis proceeds with a study of the developed production inventory control problem with a discounted cost. We establish the uniqueness solution of this Hamilton-Jacobi-Bellman equation associated with this problem. (Received August 11, 2009)