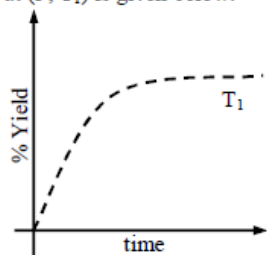
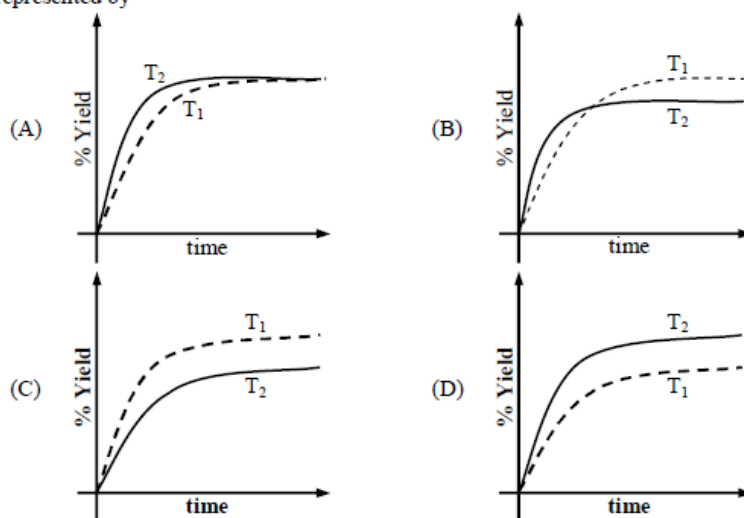


- *38. The % yield of ammonia as a function of time in the reaction

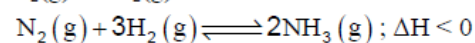
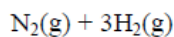
$$\text{N}_2(\text{g}) + 3\text{H}_2(\text{g}) \rightleftharpoons 2\text{NH}_3(\text{g}), \Delta H < 0$$
 at (P, T_1) is given below:



If this reaction is conducted at (P, T_2) , with $T_2 > T_1$, the % yield of ammonia as a function of time is represented by



(B)



Increasing the temperature lowers equilibrium yield of ammonia.

However, at higher temperature the initial rate of forward reaction would be greater than at lower temperature that is why the percentage yield of NH_3 too would be more initially.
