Abstract. In this paper we will discuss about mechanisms design, the mechanisms used to implement optimal market structure with private fixed cost of $N$ firms. The discussion includes definitions, goal, concepts, basic assumptions of mechanism, properties of feasible mechanism, Revenue Equivalence Theorem, and Groves mechanism. Moreover, we discuss the optimal Groves mechanism and optimal mechanism. There are two things involved in both mechanisms, those are social welfare and tax revenue.

Keywords: mechanism design, oligopoly, auctions, Revenue Equivalence Theorem