

## A STOCHASTIC MODEL ON TIME TO RECRUITMENT IN A TWO GRADE MANPOWER SYSTEM BASED ON ORDER STATISTICS

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### Abstract

In this paper a two graded organization in which depletion of manpower occurs due to its policy decisions taken by the organization is considered. Three mathematical models are constructed by assuming exponential thresholds for loss of manpower in each grade and inter-decision time to form an order statistics. Mean and variance of time to recruitment are obtained using an univariate recruitment policy and the analytical results are numerically illustrated. The influence of the nodal parameters on the system characteristics is studied and relevant conclusions are presented.

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Key Words : *Man power planning, Univariate recruitment policy, Order statistics, Mean and variance of the time for recruitment, Shock model.*