

**OPTIMAL TIME INTERVAL BETWEEN SCREENING TESTS  
FOR PROMOTIONS IN A THREE COMPARTMENT MAN  
POWER SYSTEM**

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**Abstract**

An interesting problem in manpower planning is to find the optimal time interval between screening tests for promotions in a compartment manpower system. Recruitment of persons based on their satisfactory performance in screening tests is a common procedure in many organizations. The use of compartment models in manpower planning is also quite common. In this paper manpower system having three compartments is considered and the transition of persons from one compartment to another is allowed and in between there is a screening test to evaluate the competence of individuals to get into another compartment. For the above model the optimal time interval between successive screening tests is calculated so as to minimize the total cost. The analytical result is numerically illustrated by assuming specific distribution.

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Key Words : *Manpower planning, Optimal time interval, Compartment model.*

2000 AMS Subject Classification : Primary: 90B70, Secondary: 91B40,91D35.

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