Abstract

The objective of the present paper is to analyze the performance of a two non-identical unit system by considering Weibull distributed random variables. The concept of priority to preventive maintenance of original unit over repair of duplicate unit is also used. A single repairman is available for doing all repair activities. Preventive maintenance of the unit after a pre-specific time to enhance the performance and efficiency of the system conduct by repairman. Recurrence relations for various measures of system effectiveness are derived by using semi-Markov process and regenerative point technique. The system is observed at numerical results for MTSF, steady state availability and profit function has derived for particular case.

References


**Index Terms**

Computer Science          Information Sciences

**Keywords**

Non-identical Units; Weibull Failure and Repair Laws; Preventive Maintenance; Priority and Maximum Operation Time