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