Int. J. Agricult. Stat. Sci. Vol. 18, No. 1, pp. 29-33, 2022
DocID: https://connectjournals.com/03899.2022.18.29
www.connectjournals.com/ijass
ISSN : 0973-1903, e-ISSN : 0976-3392

ORIGINAL ARTICLE

PROFIT ANALYSIS OF A 1- OUT OF 2 UNIT SYSTEM WITH A STANDBY UNIT AND ARRIVAL TIME OF SERVER

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Abstract: In this paper, we examine the profit of a 1 out of 2-unit system with a standby. The system under study comprises of three indistinguishable units. At first, out of three, two units are operational and one is in cold standby mode. When a unit in operation fails, the cold standby unit becomes operational. The system fails if all the three units fail. Every unit has two modes – operational or completely failed. A single server is available to take care of the repair activities, however, sets aside effort to visit the system after the failure of a unit. Switch devices are flawless and after repair, the unit works as good as new. All the random variables used are statistically independent. All the measures of reliability are calculated by using regenerative point technique and Semi Markov process. The after effects of different reliability measures for explicit cases are shown graphically.

***Key words*:** Identical units, Complete failure, Cold standby, Arrival time, Reliability Measures.

Cite this article

Pooja Jain, D. Pawar and S.C. Malik (2022). Profit Analysis of a 1-out of 2 Unit System with a Standby Unit and Arrival Time of Server. *International Journal of Agricultural and Statistical Sciences*. DocID: https://connectjournals.com/03899.2022.18.29