model which contains a number of summations and its value can be computed either with the help of a computer or by using the tables given in the article. We obtain in this note a MVUE of reliability through the approach of Roy and Mitra (1957) and give an easy expression for MVUE of the variance of the MVUE of the reliability without finding an expression for the variance itself.

Hazard Models with Built-In Stochastic Buffers

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Following suggestions in Kendall (1964) and Srinivasan (1976), the authors (1980) proposed a stochastic model for agriculture subjected to random hazards and evolved an unified approach through point processes for storage and reliability systems (1982). In this paper, more results are derived introducing the useful ramification, namely the buffers, envisaged to counteract an hazard manifestation. These buffers are assumed to be built-in and are recognised to be stochastic in nature. For such an hazard model (with built-in stochastic buffers), explicit results including the average time to failure (ATF) are derived. Known results in the literature, for example those in Gaver (1963), are recovered as special cases.

Cost Analysis of a 2-Unit Standby Reliability System with Two Types of Repair Facilities

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This paper deals with a two unit warm standby system. These units are identical, but have different failure rates and repair time distributions when failed in operating or standby state. If a unit fails in the operating state, we wait for the repairman for some maximum time or until the other unit fails and if a unit fails in the standby state we wait for the repairman until the other unit fails. On the failure of the second unit or on the completion of maximum time, we call the repairman immediately at higher cost.

The system has been analysed to determine the various reliability measures by using semi-Markov processes and regenerative processes.

Reliability Estimation in Stress-Strength Model: A Bayesian Approach

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The paper provides a Bayesian approach to drawing inference about the reliability of a single component stress-strength system which operates if its strength exceeds its stress. We consider a Bayes estimator of the system reliability from data consisting of a random sample from the stress distribution and one from the strength distribution when the two distributions are Weibull with equal scale parameters. The estimator of λ, the ratio of two shape parameters, is also considered. s-Efficiencies of the two estimators with respect to their MLEs is studied by Monte Carlo simulation and it is found that these estimators are good enough for such types of inferential problems.

Prediction and Confidence Interval Procedures for Lognormal and Gumbel Processes with Applications to Reliability

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Of late there has been considerable work pertaining to reliability both in the areas of 'point and interval estimation' as well as 'study of optimum prediction-intervals'. The investigations by Larry H. Crow (Technometrics 24), S.M. Shah et al. (JISA 16) and a series of articles by Satya Dubey (starting from 1961, AMS 32, p. 918) are only a few among a lot of others.

The emphasis in this paper is on Gumbel and lognormal distributions while investigation of comparative merits of MLE's percentile estimators and efficient estimators has been the main aim. Four specific sections are devoted to discussion of results developed about the following three-aspects:

(a) Joint efficiencies in respect of location and scale parameters.

(b) Confidence intervals both for failure truncated and time-truncated data.

(c) i Prediction intervals for future order statistics. ii. Prediction limits for last failure time using early failures.