Abstract

Based on the goodness of fit approach, a new test is presented for testing exponentiality versus used better than aged in convex tail ordering UBACT class of life distribution. The percentiles of this test are tabulated for sample sizes n=1(5)100. It is shown that the proposed test is simple and it has high relative efficiency for some commonly used alternatives. A numerical example in medical science demonstrates practical application of the proposed test.

References

- Ahmad, I. A. (1994). A class of statistics useful in testing increasing failure rate
average and new better than used life distributions. J. Statist. Plan., 141-149.


- Barlow, R. E. and Prochan F. (1981). Statistical theory of reliability and life testing probability models. To Begin With: Silver-Spring, MD


Index Terms

Computer Science

Applied Mathematics

Keywords

U-Statistics; Goodness of fit approach; UBACT class of life distribution; Hypothesis testing.