ACCEPTANCE SAMPLING PLANS WHERE THE ACCEPTANCE CRITERION IS THE CAPABILITY INDEX

D. K. GANGESHWER[1] AND GAURI SHANKAR[2]

[1]Sr. Asst. Prof.,Department of Mathematics,
Bhilai Institute of Technology,Durg, India
[2]Prof. and Head, SOS in Statistics,
Pt. R.S. University,Raipur, India

Abstract

This paper presents an acceptance sampling plans where the acceptance criterion is the capability index. The OC function of plan have been derived and illustrated numerically. A direct method to find the sample size and hence the acceptance constant for the plan has been proposed. The approximate formula to the percentage points of chi-square distribution developed by Goldberg and Levine (1946) has been used as a basis for derivation. Numerical results are given to illustrate the accuracy of the proposed method.

Keywords : Capability Index, Single Sampling Variable Plan, AQL, Acceptance Constant, OC, Chi-square Distribution.