TANDEM QUEUING SYSTEM WITH PREEMPTIVE PRIORITIES

DR. EL-DASH, A.A   PROF. FARAG, I.E.

EL_SHERIF, E.H

ABSTRACT

In this paper, a tandem queuing system with preemptive priorities is considered in repeat case. The arrivals and service times have Poisson and exponential distributions respectively. The stationary distribution of the customers number in the system and the effective measures are presented. The proof that the presented distribution is a generalized of R.JACKSON'S distribution is given . A simulation model to determine the effective measures of the system numerical is constructed. Finally applied example to compare the analytical and simulation results is presented.

Key words: Queuing theory, tandem queuing systems, aperiodic and irreducible matrix, preemptive priorities, repeat rule.