MATHEMATICAL MODELS AND METHODS
FOR OPTIMIZATION OF FUNCTIONING
OF FLOW-SHOP SYSTEMS

S. U. Balasheva

Some of the flow-shop scheduling problems, which are modifications of the classic Bellman-Johnson's problem, are considered in this paper. Mathematical models for these problems are given in the form of integer programming problems. The models include the restrictions of the assignment problem, and the restrictions, which reflect the rules of the system's functioning, the different objective functions are used. The algorithms for deriving of the suboptimal schedules are obtained. These algorithms are based on the solving of dual problems with the use of a subgradient procedure.