1145-90-220 **D K Mohanty*** (dkmohanty.iitkgp@gmail.com), Department of Mathematics, Indian Institute of Kharagpur, Kharagpur, West Benga 721302, India, **R K Jana** (rkjana1@gmail.com), Indian Institute of Management Raipur, GEC Campus, Sejbahar, CG-492 015, 492015, India, and **M P Biswal** (mpbiswal@maths.iitkgp.ernet.in), Department of Mathematics, Indian Institute of Technology Kharagpur, Kharagpur, Kharagpur, India. *Multi-Choice Stochastic Programming Problems Using Genetic Algorithm.* Preliminary report.

Genetic algorithm (GA) is a very important method used to solve difficult combinatorial optimization problems. Multi-choice programming (MCP) class of combinatorial optimization problems where the decision maker (DM) has to choose a value from a number of choices, and to nd a combination which optimizes an objective function subject to a given set of constraints. If some parameters present in the MCP problem follow some probabilistic distributions, then it is known as multi-choice stochastic programming (MCSP) problems. In this paper, a MCSP problem has been considered. First we apply chance constrained programming technique to nd a deterministic MCP problem. Generally, some transformation techniques are applied to transform the MCP problem to a mixed-integer programming (MIP) problem, then a standard mathematical programming is used to solve the transformed MIP problem which involves extra variables and extra constraints. But here we have proposed a GA to solve the MCP problem directly (without using any transformation technique). Finally, a numerical example is presented to illustrate the solution procedure. (Received August 21, 2018)