Formulation of β-language from the semi-deterministic pushdown automata(SDPDA) of order n

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Abstract. The authors of [4] introduced the notion of semi-deterministic pushdown automata (SDPDA) of order n as a midway stage between already known deterministic pushdown automata (DPDA) and nondeterministic pushdown automata (NPDA). The authors of [4] also introduced a new family of languages viz. β-languages of oder n that lies between deterministic context-free languages and nondeterministic context-free languages and have shown that given a β-language of order n, there exists an SDPDA of the same order that accepts exactly the given β-languages of order n. In this paper, we formulate an equivalent β-language from the language of an SDPDA order n.

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