ABSTRACT

a) Title of Thesis : **Phytochemical Study of *Parkinsonia aculeata* Stems.**

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c) Title of degree : **Master of Science**

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Parkinsonia aculeata, Linn. (Leguminosae) is a spiny shrub or small tree, generally grown as hedge plant. Flowers and seeds of the plant are known to have antipyretic activity while alcoholic and aqueous extract of the plant have central nervous system depressant activity and cholinomimetic activity in mice respectively. A literature survey showed that no chemical investigation of stems of *P. aculeata* had been

undertaken so far. The present study was, therefore, taken to study the chemical constituents of stems of *P. aculeata*. Stems of *P. aculeata* were collected from Landscape Section, CCS HAU, Hisar and then extracted with hot methanol. The column chromatography of the extractives afforded five compounds. Of these, two compounds already reported from this plant are β-sistosterol and β-sitosteryl-β-D-glucoside. The other three compounds are being reported for the first time from this plant. These are glycerol β-butanoate α, α'-pentanoate, glycerol α-heptanoate α'-octanoate and sucrose. Of these, the two glycerides are hitherto unreported compounds.

The isolated compounds were characterised on the basis of UV-VISIBLE, IR, ^{1}H NMR and MS data. Properties of the compound and derivatives were also taken into account. The structure arrived are consistent with the literature data.