CHAPTER - 7

CONCLUSION
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The present piece of research work and our results support the view that the three of the medicinal plants (*Sphagneticola trilobata*, *Achyranthes aspera* and *Chrysanthemum*) selected and experimented for our study, are the promising sources of natural antioxidants. The significant compounds with antioxidant property present in flower, leaf and root parts of plants were found to exhibit high/average scavenging activity evaluated in terms of Malondialdehyde (MDA), Reduced Glutathione (GSH), Superoxide dismutase (SOD), Catalase (CAT) and Glutathione peroxidase (GPx). Further their activity was evaluated more intricately by their comparison with the established antioxidant, Melatonin. Thus, the antioxidants present in different parts of three plants were found efficient enough to neutralize the adverse effect of free radicals.

- Leaf and root parts of *Sphagneticola trilobata* were found as the rich antioxidant sources. Antioxidant activity was found to be more strong and efficient in leaf than the root, and very less in flower, for recovery process from the state of oxidative stress. All the more, flower extract showed lesser antioxidant activity when compared to that of Melatonin.

- Root and flower / inflorescence of *Achyranthes aspera* were found as antioxidant rich parts. Root showed high antioxidant property than that of flower in recovery process from the state of oxidative stress, leaf being the least efficient. Also that the leaf extract exhibited less antioxidative potential as compared to that of Melatonin.

- Flower of *Chrysanthemum* was found to be the richest source of antioxidant amongst the different parts of the same plant, and root showed mild
antioxidant activity. Strong activity was exhibited by the flower than the root to overcome the oxidative stress, with less efficiency in leaf. Leaf extract showed the least efficiency as compared to that of Melatonin.

In modern western medicines, the balance between antioxidation and oxidation forms the sole basis of maintaining a healthy biological system. This can be established by the increase in the intake of foods rich in antioxidant compounds, and also through their applications in pharmaceutical products. Our work has thus, added one more string to the search for antioxidants from the natural sources/medicinal plants, especially from the area of Durg and Bhilai of Chhattisgarh, that could be suitable for pharmacological applications and in the field of Medicines.