Conclusion

All selected plants (Jasminum humile, Emblica officinalis and Punica granatum) were commonly used in Traditional medicine, but no significant pharmacological work has been conducted on the antimicrobial, antioxidant and antidiabetic effect of leaves of the plants. The present study showed that leaves extract of all selected plants possesses antimicrobial, antioxidant and antidiabetic activity. Based upon the present investigation it is concluded that

- Methanolic leaves extract of Jasminum humile exhibited antimicrobial activity against all strains of micro bacteria at concentration 50 mg/ml when compared with standard drug (Gatifloxcin & Gentamycin) and have appeared to be broad spectrum activity.
- Hydro-methanolic leaves extract of Emblica officinalis was found to be more effective against gram negative as compare to gram positive bacteria.
- Methanolic leaves extract of Punica granatum was found to be more effective against gram positive as compare to gram negative bacteria.
- Hydro methanolic leaves extract of Emblica officinalis had maximum scavenging activity at dose 100 μg/ml.
- Aqueous leaves extract of Jasminum humile (ALEJH) shows maximum decrease in blood glucose and increase plasma insulin level at dose 300mg/kg when compared with standard drug.
- Aqueous leaves extract of Jasminum humile (300 mg/kg) shows maximum beneficial effects on lipid profile as compare to other selected plant leaves extracts.
- Elevated transaminases (SGOT/ SGPT) were reduced maximum by HMLEEO followed by AELJH and MLEPG. From this point of view Emblica officinalis leaves extracts may act as hepatoprotective agent.
**Conclusion**

- *Emblica officinalis* leaves extract at dose 400 mg/kg shows maximum reduction in serum urea and creatinine level. Based on these finding, the extract of leaves of this plant may enhanced the ability of the kidney to remove these waste product s from the blood, as indicated a protective effect on the kidney of diabetic rats.

- Leaves extracts of all selected plants shows significant (p<0.05) decrease TBARS level but maximum decrease was exhibited by HMLEEo at the dose of 400mg/kg and reduce the risk of tissue damage.

- Maximum increase in SOD and CAT level by leaves extract of *Emblica officinalis* at dose 400mg/kg which could exert a beneficial action against pathologica l alteration caused by the presence of superoxide radicals and hydrogen peroxide radical.

- All selected plants leaves extract resulted in the elevation of the GSH levels but maximum level increased by ALEJH at dose 300mg/kg, which protect the cell membrane against oxidative damage by regulating the redox status of protein in the membrane.

The results with different extracts validate the ethnopharmacological claims, hence *Jasminum humile, Emblica officinalis* and *Punica granatum* could be developed as an antimicrobial, antioxidant and antidiabetic agent useful in primary medical care. From preliminary phytochemical analysis it was found that the major chemical constituents of selected plants were tannins, alkaloids, polyphenolic compound and flavonoids. It could be stated that the presence of tannins, alkaloids flavonoids may be responsible for the observed antidiabetic activity and reduce oxidative stress. Further pharmacological and biochemical investigations are underway to find out the active constituents responsible for antidiabetic activity and to elucidate its mechanism of action.