

## **12.2. Conclusion**

The present study demonstrated successful formulation development of drugs rifampicin and isoniazid which are used in the treatment of Tuberculosis. Different gastroretentive polymeric multiparticulate dosage forms like pellets, granules and beads for rifampicin were successfully prepared and evaluated and optimized by design expert optimization software v.9.0.3.1. Whereas immediate and delayed release pellets for isoniazid were prepared and evaluated. Combination of gastroretentive rifampicin pellets and delayed release enteric coated pellets of isoniazid has successfully minimized the interaction between these drugs and stabilized rifampicin in gastric conditions by releasing around 98.72 % of rifampicin. Ex vivo absorption studies proved that rifampicin was well absorbed in gastric conditions when compared to the intestinal conditions. There was even good IVIVC with respect to the floating time as this gastroretentive formulation which showed a floating time of 5.75 h in vitro has a shown gastroretention of 5 h in rabbits.