OBJECTIVE

- Ranitidine hydrochloride is used as a histamine H$_2$-receptor antagonist in the treatment of peptic ulcer, duodenal ulceration and Zollinger-Ellision syndrome. Ranitidine hydrochloride is a widely used anti-ulcer drug with low molecular weight and biological half life 1.6 - 2.4 hours. Conventional dose of 150 mg (Ranitidine) has demonstrated inhibition of gastric acid secretion up to 5 hour but not up to 10 hour (2001) [51]. The bioavailability of Ranitidine following oral administration is about 50%.

- Basit et al. (2004) [20] reported that mean absolute bioavailability of Ranitidine from the immediate release, small intestinal release and colonic release formulations were 50.6, 46.0 and 5.50% respectively.

- Pithvala et al., (1998) [18] reported that the bioavailability of Ranitidine hydrochloride was markedly lower from colon compares to upper part of GI tract.

- Basit et al., (2001) [21] reported that Ranitidine is metabolized by colonic microorganism and suggested that this is one of the reasons behind lower bioavailability of drug.

- It has been reported that Ranitidine hydrochloride has better absorption in upper part of GI tract and all above mentioned ulcers; disease is mainly in stomach and upper part of GIT origin. Hence in the present work, an attempt has been made to design an alternative dosage form for Ranitidine in the form of floating tablets to overcome the above said disadvantages of conventional Ranitidine tablets and to achieve the prolonged drug therapy.