3. AIM OF THE PRESENT WORK

- In the recent years there is increase in number of patients with cancer. Drugs for treatment of cancer available in market have number of side effects.

- RAF is serine/threonine kinase that is part of mitogen activated protein kinase which is responsible for cancer.

- Drugs with quinazoline moiety in the structure have proved its role in many dysfunction of human body like cancer, inflammation, malaria, tuberculosis etc. Marketed drug with quinazoline moiety like sorafenib, erlotinib, gefitinib have been used for cancer treatment.

- Drugs with thiazole moiety like doxorubicin, dasatinib, imatinib etc. are available and having usefulness in the treatment of cancer.

- Quinazoline and thiazole pharmacophore may serve as an important scaffold on which to develop new pattern in cancer chemotherapy. 4-substituted quinazoline and their derivatives were found to be potent and selective ATP competitive kinase inhibitors.

- Literatures revels that number of heterocyclic groups have been used as hinge-binding moieties to generate interactions with the backbone of the hinge, for example 2-carboxamidopyridine group in sorafenib or a 4-aminoquinazoline group in gefitinib and erlotinib.

- It was plan to synthesize molecules with 4-substituted (diaryl amide) quinazoline moiety as molecular scaffold by using strategies like linking with five member ring (thiazole) and by varying chain length in the target molecules for better anticancer activity.

- By using docking study, it was designed to synthesized compounds which having least binding energy and screened for anticancer activity using different cell line like breast cancer cell line, colon cancer cell line, normal cell line by MTT Assay.