Review of the Literature:

Being the most essential commodity for life, water quality is getting prime importance in research also. Many studies have been carried out by different researchers in the other parts of the country. However, a survey of literature reveals that there is no systemic study available on potability of ground water in the rural areas of Rajasthan; hence the present work has been undertaken for complete and proper study taking ground water contamination and assessment of the problem in Udaipuwati block in Jhunjhun district of Rajasthan.

Extensive studies have been carried out by various workers in the other parts of the country. Ram Chandra and R.N. Prasad\(^1\) carried out a study of ground water quality variation during a year in singhana town, district Jhunjhunu. Chhaya Bhatnagar and Bhag Chand\(^2\) studied neurodegenerative effect of fluoride. Praveen Kumar and H.B. Sharma\(^3\) carried out a detailed study on physicochemical characterization of lentic water of radha kund (district- Mahura). “Biological Nutrient Removal Process” has been studied by V.Ramesh and R.Geetha\(^4\) have reported methods for removal of Biological Nitrogen and Phosphorus from water. “Fluoride Contribution to Surface waters from Sub Surface strata- A Case Study” reported by Dr.A.Ramalingeiswara Rao and others.\(^5\) “Water Sanitation and Health with special reference to the water related health problems of Rajasthan” reported by Prof.K.J.Nath\(^6\) concentrates on the health problems which may occur due to poor water quality.

“Water resources and their management in the Indian Arid Zone” by Dr.A.S.Faroda\(^7\) focuses on the proper and better use of water resources for long time availability of good quality water. In a brain-storming article, “Water Resource Development in Gujrat: Research Needs” Mr.S.K.Gupta\(^8\) talks about the needs of renewable resources of water.

“Defluoridation of Water with PAC the only available alternate” the work carried out by Mr.V.K.Chhabra\(^9\) giving a new technique of Defluoridation using Poly Aluminium Chloride. Impact of Fluorosis on a part of rural population of M.P. has been studies by Patel\(^10\), Vasudevan & coworkers\(^11\) have reported methods for control of fluoride content in the ground water. A
review article on fluorosis and its preventive strategies have been given by Kumar and Gopal\textsuperscript{12}, and fluoride Hazards in ground water in orrisa have been reported by Das and coworkers\textsuperscript{13}.

S. srinivasa Gowd\textsuperscript{14} has reported quality assesment of ground water in particular area of Andhra Pradesh. The ground water pollution in and around a solid waste disposal sites has been studied by Kumaraswami\textsuperscript{15}. the Fluorosis among school children\textsuperscript{16} and Iodine concentration in ground water in Rajasthan\textsuperscript{17} have been reported by few workers.

Chandel et al\textsuperscript{18} (2008) have studied quality of ground water of Jaipur city and its suitability for domestic and irrigation purpose. They reported groundwater quality of Jaipur city experienced degradation due to rapid urbanization and industrialization. Gadhave et al\textsuperscript{19} (2008) have studied water quality in industrial area near Shrirampur Maharashtra. They reported that the natural quality of ground water tends to be degraded by human activities. Ilangeswaran et al\textsuperscript{20} (2009) studied assessment of Quality of Groundwater in Kandarvakottai and Karambakudi Areas of Pudukkottai District, Tamilnadu. They found that almost all the parameters for most of the samples in permissible limits. Mukherjee et al\textsuperscript{21} (2005) studied assessment of groundwater quality in the south parganas (province), west Bengal coast. They reported that the concentrations of various ions are above the permissible limits for drinking and irrigation purposes.

In the area of Shekhawati the draw down of ground water has increased for domestic and agricultural use, the use of fertilisers and pesticides also increased. In the last decade low rainfall also recorded in the district due to which recharging of ground water could not take place properly. The imbalance of recharging and draw down of ground water affected the ground water quality to a large extent. Fluoride content in water is also increased resulting in Fluorosis among the population of this area.

It is evident from the facts that a detailed study of quality of potable ground water of the area is required. To supplement these studies it is therefore proposed to undertake complete study of ground water quality in this proposed area. For this, ground water samples from hand pumps, tube wells, wells, step wells etc. may be collected and analysed completely. The sample
will be collected from different depth and at different seasons of the year i.e. rainy season, winter and summer seasons and in some cases pre monsoon and post monsoon sampling also required.

A comparative study is thus proposed to be undertaken and statistical data be processed. It is also proposed to evolve some methods for improving the quality of potable water specially for Fluoride and Nitrate affected areas.