CE/BOS/CE 437/0513

K L UNIVERSITY
RURAL WATER SUPPLY AND SANITATION (11 - CE 437)

Pre – requisite: 11 - CE 207
SYLLABUS

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Magnitude of problem of water supply and sanitation in rural areas
National policy. Various approaches for planning of water supply systems in rural areas. Selection and development of underground sources of water, Collection of raw water from surface source. Specific pollutants in rural water supply and treatment e.g. iron, manganese, fluorides etc. Low cost treatment , appropriate technology for water supply and sanitation. Improvised method and compact system of treatment of surface and ground waters. Water supply through spot-sources, hand pumps, open dug –well. Planning of distribution system in rural areas. Water supply during fairs, festivals and emergencies. Simple wastewater treatment system for rural areas and small communities such as stabilization ponds, septic tanks, soakage pits etc. Treatment and disposal of wastewater/sewage. Various method of collection and disposal of night soil. On site sanitation system and community latrines. Disposal of solids waste composting, land filling. Biogas plants.

Text books

1. Manual of water supply and treatment, 3rd edition, CPHEEO, GOI, New Delhi.
2. Environmental Sanitation by Kapoor, B. S., S. Chand and company, New Delhi, 2001
3. Water Supply Engineering: Environmental Engineering (Vol I) by Garg, S. K. Khanna Publishers, New Delhi, 2012
4. Rural, Municipal and Industrial Water Management by Murali Krishna, KVSG;, Environmental Protection Society, Kakinada, ISBN 13: 9788183510066

REFERENCE Books:

1. Low cost on site sanitation option, Hoffman & Heijno Occasional Nov.1981 paper No. 21, P.O. Box 5500, 2280 HM Rijswijk, the Netherlands offices, J.C. Mokeniaan, 5Rijswijk, the Haque.
2. Wagner, E.G. and Lanoik, J.N. Water supply for rural areas and small communities, Geneva: W.H.O., 1959.
3. Wright, F. B. Rural water supply and sanitation, Robert E. Kriegier Publishing company, 3rd Edition, new York, 1977.