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WLM- 241

**GROUNDWATER MANAGEMENT**

1. Geology of Maharashtra, Ground Water Regions in India.
2. Hydrogeology, Aquifers, groundwater, survey techniques, Ground Water, Survey Techniques, Transmissibility of water, water holding capacity of aquifers, dynamic components.
3. Conjunctive use of surface and groundwater, abstraction of groundwater, artificial recharge to groundwater, filtration techniques.
4. Groundwater balance study, Economics of groundwater use.
5. Open dug wells, design of open wells, Hydraulics of well, Well yield estimation.
6. Tube wells & Types, Tube well drilling & their equipments, types of drilling, usages

**Sessional Work:**

1. Visit to recharge system
2. Yield estimation

**Readings:**

1. Ground water hydrology by Todd D. K. John Wiley.
2. Ground water & Tube wells by Garg S. P. (Oxford & IBH.)
3. Ground water Assessment, Development & Management by Karanth K. R.
4. Ground water Assessment, Development & Management by PBS Sharma
5. Irrigation Theory & Practices by Michael A. M.

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**MANAGERIAL PERSPECTIVES**

1. Concepts, Nature, Process and significance of Management. Types of Management, Organization & their functioning: - Govt. Semi - Govt. Corporation, NGO, Private, Co - Operative, organization etc
2. Planning organizing coordination, supervision, motivation, leadership & control : Discussion of these concepts with stress on farm - management.
3. Role of Farmer - as a Manager and entrepreneur.
4. Present decision - making process of farmer and all possible applications of modern management techniques to improve this process [such as optimization techniques , data base analysis , etc]
5. Agriculture Marketing: Weekly Bazars, APMC, APEDA, Marketing Federations, Pvt. Companies, Legal aspects of marketing reforms.

**Reading:**

1. Principles of Management : by Dunker Pagare
2. Principles of Management : by Terry
3. Ozarche Pani [ Marathi] by kaka upadhye
4. Productivity of Land & Water Ed. Jayant Patil , M.A. Chitale , & S. B. Varade , New Age International Publishers.
5. राजहंस प्रकाशन : योधा शेतकरी - ले. विजय परुडकर

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