

**INDEX****UNIT I****Chapter 1 : Introduction to Irrigation and Hydrology****1-1 to 1- 43****Syllabus :**

Irrigation and its Classification on the basis of purpose and surface.

Hydrology : Definition and Hydrological cycle.

Rain Gauge : Symons rain gauge, automatic rain gauge, Methods of calculating a verge rainfall : Arithmetic mean, Isohyetal, and Thiessen polygon method.

Runoff, Factors affecting Run off, Computation of run off.

Maximum flood Discharge measurement : Rational method and empirical methods. Simple numerical problems.

Yield and Dependable yield of a catchment determination of dependable yield.

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UNIT II**Chapter 2 : Crop Water Requirement and Reservoir****Planning****2-1 to 2-52****Syllabus :**

Crop Water Requirement : Cropping seasons, crop period, base period, Duty, Delta, CCA, GCA, intensity of irrigation, factors affecting duty, Problems on water requirement and capacity of canal



<p>Methods of application of irrigation water and its assessment.</p> <p>Surveys for irrigation project, data collection for irrigation project.</p> <p>Area capacity curve.</p> <p>Silting of reservoir : Rate of silting, factors affecting silting and control measures.</p> <p>Control levels in reservoir.</p> <p>Simple numerical problems on Fixing control levels.</p>			
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UNIT VI

Chapter 6 : Canals

6-1 to 6-48

Syllabus :

Canals : Classification according to alignment and position in the canal network, Cross section of canal in embankment and cutting, partial embankment and cutting, balancing depth. Design of most economical canal section.

Canal lining : Purpose, material used and its properties, advantages.

CD works : Aqueduct, siphon aqueduct, super passage, level crossing.

Canal regulators : Head regulator, cross regulator, Escape, Falls and outlets.

Canal maintenance.

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