

2.9 30275 IRRIGATION ENGINEERING

UNIT-1 INTRODUCTION

- 1.1 definition
- 1.2 necessity and scope of irrigation science
- 1.3 benefits and ill-effects of irrigation
- 1.4 types of irrigation

UNIT-2 METHOD OF IRRIGATION

- 2.1 modes or method of applying water to crop
- 2.2 uncontrolled or wild flooding
- 2.3 free flooding
- 2.4 flooding by contour laterals
- 2.5 The zigzag method, furrow method, contour farming, sprinkler method, drip irrigation.

UNIT-3 WATER REQUIREMENT OF CROP

- 3.1 function of irrigation water
- 3.2 quality of irrigation water
- 3.3 types of soil
- 3.4 limiting soil moisture conditions
- 3.5 depth and frequency of irrigation.
- 3.6 duty and factor affecting duty

UNIT-4 HYDROLOGY

- 4.1 history of hydrology
- 4.2 The hydrologic cycle
- 4.3 hydrological data
- 4.4 precipitation
- 4.5 measurement of rainfall
- 4.6 evaporation and infiltration
- 4.7 runoff and factor affecting runoff
- 4.8 unit and S-hydrograph

UNIT-5 DAMS

- 5.1 introduction
- 5.2 classification according to use, hydraulic design, material
- 5.3 gravity dams
- 5.4 arch dams
- 5.5 buttress dam
- 5.6 steel and timber dam
- 5.7 earth dam and rockfill dam



UNIT-6 FLOW IRRIGATION

6.1 canal: classification

6.2 canal alignment

6.3 curves and inundation canals

Reference Book:

1. Irrigation Engineering by Dr. P.N. Darde

