

# AMCE26 WATER RESOURCE SYSTEM & PLANNING

## UNIT-1 INTRODUCTION

- 1.1 Methods of irrigation
- 1.2 Water requirements for crops
- 1.3 Hydrology

## UNIT-2 GROUND WATER

- 2.1 Well irrigation
- 2.2 Reservoir planning
- 2.3 General Dams
- 2.4 Gravity dams
- 2.5 Arch & buttress dams
- 2.6 Earth and rock fill dams
- 2.7 Spill ways dam
- 2.8 Diversion head works.

## UNIT-3 FLOW IRRIGATION

- 3.1 Irrigation channels
- 3.2 Silt theories
- 3.3 Design procedure of an irrigation channel
- 3.4 Water logging and canal linking
- 3.5 Canal out lets
- 3.6 Canal regulation works
- 3.7 Cross drainage works.

## UNIT-4 RIVER ENGINEERING

- 4.1 Water power engineering
- 4.2 Water resources planning.

### Reference Books:

1. Water Resource Systems Planning and Management An Introduction to Methods, Models, and Applications Authors: Loucks, Daniel P., van Beek, Eelco
2. Abbast S.A. (2001): "Water resource Projects and their environment impact". Himalaya publishing house, New Delhi. Pp 89-92
3. Biswas Asit K. (1993): "Water for sustainable development in 21st century – A Global perspective Oxford publisher, Delhi. Pp 73-75