

2.18 30273 THERMAL ENGINEERING

UNIT-1 STEAM NOZZLES:

- 1.1 flow of steam through convergent, divergent nozzle
- 1.2 velocity of steam leaving nozzles
- 1.3 critical pressure ratio
- 1.4 area of cross section of throat and exit for maximum discharge
- 1.5 Numerical problem

UNIT-2 STEAM TURBINES:

- 2.1 classification and industrial application of steam turbine
- 2.2 principle and operation of impulse and reaction turbine
- 2.3 compounding of turbines
- 2.4 reheating of steam, bleeding of steam
- 2.5 lubrication system for steam turbines
- 2.6 simple numerical problems

UNIT-3 STEAM CONDENSER:

- 3.1 Introduction
- 3.2 Type of condenser
- 3.3 low, high and ejector type of jet condenser
- 3.4 source of air leakage and its effect

UNIT-4 AIR PUMPS AND COOLING TOWER:

- 4.1 types of air pump
- 4.2 description of wet and dry type of air pumps
- 4.3 Type of cooling towers
- 4.4 Description of cooling towers

Reference books:

1. Thermal Engineering (Hindi) Verma & Gulecha
2. Thermal Engineering Vol.1 Mathur & Mehta.
3. Thermal Engineering R.K.Purohit.
4. Thermal Engineering R.S. Khurmi
5. Elements of Heat Engines -Vol.1 Patel & Karam Chandani