

Code: EE3T3

**II B.Tech - I Semester – Regular/Supplementary Examinations
November 2018**

**THERMAL AND HYDRO PRIME MOVERS
(ELECTRICAL & ELECTRONICS ENGINEERING)**

Duration: 3 hours

Max. Marks: 70

PART – A

Answer *all* the questions. All questions carry equal marks

11x 2 = 22 M

1.

- a) List out the main components in a steam power plant.
- b) Classify the steam turbines.
- c) What is the purpose of compounding of steam turbines?
- d) What are the applications of gas turbine?
- e) What are the gas turbine fuels?
- f) What are diesel fuels?
- g) What is super charging?
- h) Classify the hydraulic turbines.
- i) What is the purpose of governing of turbines?
- j) List out different types of centrifugal pump.
- k) What are the main components of a reciprocating pump?

PART – B

Answer any **THREE** questions. All questions carry equal marks. 3 x 16 = 48 M

2. a) Explain the working of Lamont boiler. 8 M
b) With neat sketch explain working of jet condensers 8 M
3. a) Explain the working of closed cycle gas turbine. 8 M
b) Explain with neat sketch improving thermal efficiency of a gas turbine by reheating method. 8 M
4. a) Explain the working of Diesel engine with neat sketch. 8 M
b) What are the main components in Diesel electric power plant? 8 M
5. a) Explain the working of Pelton wheel with a diagram 8 M
b) What are the differences between impulse and reaction turbines. 8 M
6. a) With a neat sketch explain the working of a centrifugal pump. 8 M
b) Explain the working of a reciprocating pump. 8 M