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Roll No

MMTP-301(A)**M.E./M.Tech., III Semester**

Examination, December 2017

**Computer Aided Design of Thermal System
(Elective-I)****Time : Three Hours****Maximum Marks: 70**

- Note:** i) Attempt any five questions.
ii) All questions carry equal marks.

1. Discuss the basic element of thermal system design. Also describe the conceptual design steps in design process.
2. Explain :
 - i) Differentiate between Physical and Conceptual model
 - ii) Thermal design of heat engine.
3. Describe the system simulation and methods for Numerical simulation.
4. What is optimization and discuss different optimization methods.
5. Explain :
 - i) Basic concept of optimization
 - ii) Objective function and constraints of optimization

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6. Explain the Search Method of linear and dynamic programming and where it is used.
7. Give the design steps for the evaporator. Explain each step in detail. What are the different design process for material selection of Refrigeration System.
8. Write short notes on (any two) :
 - a) Numerical Computation techniques for continuous model
 - b) Objective of optimization
 - c) Application to casting extrusion
