

Roll No .....

**MEPE-302(A)**

**M.E./M.Tech., III Semester**

Examination, December 2016

**Computer Aided Power Electronics Analysis and  
Design (Elective - II)**

*Time : Three Hours*

*Maximum Marks : 70*

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

1. What do you understand by power electronics simulation? Write the various method of analysis and formulation of system equation.
2. How power electronics system element are modelled in computers analog with system equation.
3. What are the various power electronics simulink packages? Explain the sequential methods of simulation.
4. Explain in details Spice and its working.
5. How efficient computation is done in computers with the help of advance techniques.
6. Write short notes on:
  - i) Creation of data files for power semiconductors
  - ii) Magnetic and capacitor

7. a) What do you understand by Graph theory?  
b) Discuss the Design of protection circuit.
8. Write short notes on any two of the following :
  - a) Modeling of stray inductance
  - b) Thermal modeling
  - c) Heat Flow design

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