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Question Paper Code: 55005

Ph.D COURSE WORK EXAMINATION, MAY 2018

Elective

Course Work

15PPE505–COMPUTER AIDED DESIGN OF POWER ELECTRONICS CIRCUITS

(Regulation 2015)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART - A (5 x 20 = 100 Marks)

1. (a) Review the performance of IGBT used as current control devices CO1-Ana (20)

Or

(b) Review the performance of single phase inverter circuit with the help of computer aided design. CO1-Ana (20)

2. (a) Compare coupled and decouple system suitable examples. CO2- U (20)

Or

(b) Classify the future trends in computer simulation. CO2- U (20)

3. (a) Explain the need of DC sweep analysis in power converter. CO3-U (20)

Or

(b) Consider any power electronic device and perform a time domain analyzes. CO3-U (20)

4. (a) Demonstrate the concept of system level integration by considering suitable system. CO4-Ana (20)

Or

(b) Perform the fourier analyze of single phase inverter and discuss the output voltage and current in nonlinear operation. CO4-Ana (20)

5. (a) Develop a simulation circuit of Cyclo converter feeding R load and draw the output waveforms. CO5-Ana (20)

Or

(b) Design and develop a simulation circuit of single phase Cyclo converter feeding RL load and draw the output waveforms. CO5-Ana (20)