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Question Paper Code: 52T25

Ph.D. COURSE WORK EXAMINATION, APRIL 2019

Course Work

Power Electronics and Drives

15PPE525 – ENERGY MANAGEMENT AND AUDITING

(Regulation 2015)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART - A (5 x 20 = 100 Marks)

1. (a) Discuss the different phases of energy auditing methodology. CO1- U (20)
Or
(b) Explain about energy monitoring, targeting and reporting in detail. CO1- U (20)
2. (a) Explain in detail about the various demand control possibilities to do load demand. CO2-U (20)
Or
(b) Explain utility rate structures and cost loss evaluation of electricity in detail. CO2- U (20)
3. (a) Explain the synchronous machine control and energy management in detail. CO3- U (20)
Or
(b) Which is the best location for capacitors banks for power factor improvement from energy conservation point of view? Why? Give detail explanation. CO3-U (20)

4. (a) Discuss various cost factors associated with metering. CO4- U (20)
- Or
- (b) Describe the various cost factors involved in metering and explain CO4- U (20)
timing of meter disc for kilowatt measurement.
5. (a) Describe the effect of power factor and harmonics on power CO5-U (20)
quality.
- Or
- (b) Explain about the various types of light sources and also discuss CO5-U (20)
about its luminous performance characteristics. Give your comment
on the various sources with aspect of energy management.
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