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Question Paper Code: 95T30

Ph.D. COURSE WORK EXAMINATION, NOV 2019

Elective

Power Electronics and Drives

19PPE530 – DISTRIBUTED GENERATION AND MICRO GRID

(Regulation 2019)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART - A (5 x 20 = 100 Marks)

1. (a) Explain about the operation of thermal power plants. Mention its advantages and disadvantages. CO1- U (20)
Or
(b) Explain in detail about the principle and working of Fuel cell. Give the necessary equations. Discuss about its merits and demerits. CO1- U (20)
2. (a) Discuss about energy storage elements - Batteries, Ultra capacitors, Flywheels and its applications.. CO2-U (20)
Or
(b) Explain about captive power plant and mention its advantages and disadvantages. CO2-U (20)
3. (a) Explain the international regulations and standards followed for the grid interconnection. CO3- U (20)
Or
(b) Discuss about the various power quality issues and various power conditioning technologies.. CO3-U (20)
4. (a) Discuss the operational issues of a micro grid. CO4- U (20)
Or
(b) (i) Describe BBS framework. CO4- U (10)
(ii) Explain about the issues of BBS frame work. CO4- U (10)

5. (a) Discuss about Grid-Connected and islanded mode of operation in micro grid.. CO5- U (20)

Or

(b) Discuss in detail about microgrid communication infrastructure. CO5- U (20)
