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**Question Paper Code: 95T19**

M.E. DEGREE EXAMINATION, NOV 2019

Elective

Power Electronics and Drives

19PPE519 – ELECTRIC POWER QUALITY

(Regulation 2019)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART - A (5 x 20 = 100 Marks)

1. (a) Explain the power quality terms and standards in detail. CO1- U (20)  
Or  
(b) Classify and Explain Short duration variations, Long duration variations and Power System frequency Variations. CO1- U (20)
2. (a) Analyze the three phase four wire system for ensuring Power Quality. CO2- Ana (20)  
Or  
(b) Compute the power factor in Single Phase and Three Phase System. CO2- Ana (20)
3. (a) Analyze the unbalanced three phase system for ensuring Power Quality. CO3- Ana (10)  
Or  
(b) Apply a suitable algorithm for extracting fundamental sequence components. CO3- Ana (20)
4. (a) Explain the functioning of single phase load compensator CO4- U (20)  
Or  
(b) Explain the functioning of three phase shunt compensator with neat sketch. CO4- U (20)

5. (a) Illustrate the rectifier supported DVR with suitable example. CO5- U (20)

Or

(b) Describe Unified power quality conditioner with neat diagrams. CO5- U (20)