Roll No.

Total No. of Pages: 02

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M.Tech. (Electrical Engg.) (Power System) (2018 Batch) (Sem.-2) POWER QUALITY

Subject Code: EEPS-204C-18 M.Code: 76091

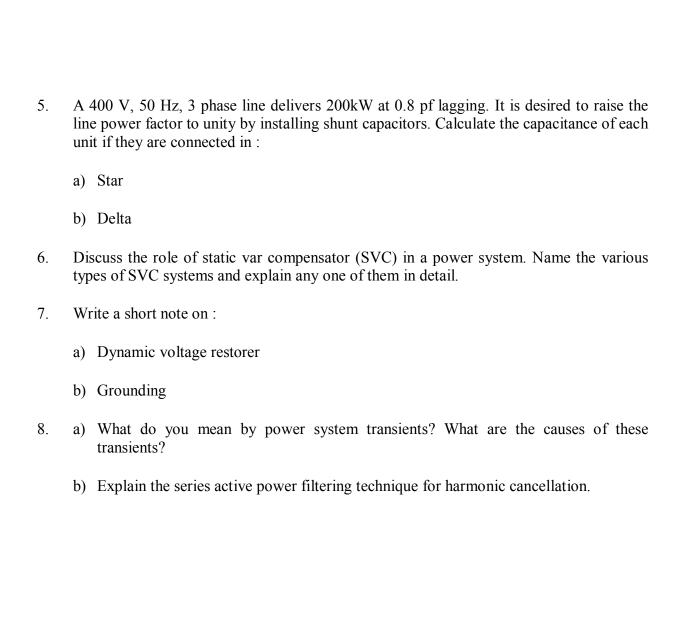
Time: 3 Hrs. Max. Marks: 60

INSTRUCTIONS TO CANDIDATES:

- 1. Attempt any FIVE questions out of EIGHT questions.
- 2. Each question carries TWELVE marks.
 - 1. What is power quality? Why are we concerned about power quality? Discuss the various types of disturbances causing power quality degradation in a power system.
 - 2. Define harmonics. Discuss the various sources of harmonics. What are the negative effects of harmonics on power system equipment and load?
 - 3. a) Explain the power quality problem created by shunt capacitors, transformers and drives.
 - b) Write a short note on power Quality Standards and Guidelines.
 - 4. a) Define power factor? What are the causes of low power factor?
 - b) A wound coil that has an inductance of 180mH and a resistance of 35 Ω is connected to a 100V 50Hz supply. Calculate :
 - i) The impedance of the coil,
 - ii) The current,
 - iii) The power factor, and
 - iv) The apparent power consumed.

Also draw the resulting power triangle for the above coil.

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NOTE: Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.

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