

**DR. BABASAHEB AMBEDKAR TECHNOLOGICAL
UNIVERSITY,
LONERE - RAIGAD - 402 103
Winter Semester Examination - December - 2019**

Branch: M.Tech. (Electrical Power System)

Semester: I

Subject :- MTEPS105B: Power Quality Assessment And Mitigation Marks:60

Date:- 21/12/2019

Time:3 Hrs.

Instructions to the Students

1. Each question carries 12 marks.
2. Attempt any five questions of the following.
3. Illustrate your answers with neat sketches, diagram etc., wherever necessary.
4. If some part or parameter is noticed to be missing, you may appropriately assume it and should mention it clearly.

- (Marks)**
- Q.1. A] Explain importance of the different power quality terms? Define all. (6)
B] What are Good grounding practices and give poor grounding problems. (6)
- Q.2. A] Explain Various devices used for voltage regulation and give their impact of on reactive power management (6)
B] what are Various causes of flicker and their effects. Explain means to reduce. (6)
- Q.3. A] Compare Voltage sags versus interruptions. (6)
B] Explain in detail different mitigation techniques for voltage sag . (6)
- Q.4. A] What are the Harmonics series and parallel resonances. Consequences of harmonic resonance. (6)
B] Explain Harmonic filtering also passive and active filters. (6)
- Q.5. A] What is need of power quality monitoring considerations & approaches. (6)
B] List power quality measurement equipments. Discuss Selection of power quality monitors, selection of monitoring location and period. (6)
- Q.6. A] Explain Power quality indices and standards for assessment disturbances. (6)
B] Discuss Power assessment under waveform distortion conditions. (6)