

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

Branch: M.Tech. (Electrical Power System)

Semester:II

Subject:-Modelling and Simulation of Power Electronics System. MTEPS204B

Date:- 18/12/2019

Marks:60

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 some time domain analysis techniques in detail? Discuss challenges in computer simulation (6)
B) What is the role of computer simulation in electrical systems. (6)
- Q.2. Discuss state space representation of Buck-Boost converter in detail. (12)
- Q.3. Explain any trapezoidal integration method for simulation in detail (12)
- Q.4. A) Explain state space model of 3-ph induction motor. (6)
B) Explain in detail the simulation of 3phase 3 level inverter drive for 3 phase Induction Motor. (6)
- Q.5. Discuss the analysis of modelling and simulation of series VAR compensation. (12)
- Q.6. A) Elaborate how is the simulation and design of power electronic converter using state space averaged models. (6)
B) Elaborate with example LINIERIZATION of converters with transfer function. (6)
- Q.7 A) Explain the modelling of UPFC . (6)
B). Explain the modelling of STATCOM. (6)

Paper End