Roll No.		Total No. of Pages: 01
Total No. o	f Questions: 08	
	M.Tech. (Power System)	(Sem. – 2)
	POWER SYSTEM DYN	AMICS-II
Subject Code: MTPS-201-18		
	M Code: 76132	
	Date of Examination : 17	7-12-2022

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. a) Distinguish between steady state and transient stability of power system network.
 - b) Differentiate static and dynamic systems and their stability.
- 2. a) What are the effects of damper in synchronous machine ?
 - b) What is the role of AVR in power system? Illustrate with example.
- 3. a) Develop the stator equations of a synchronous machine.
 - b) Discuss the methods of stability assessment criteria in the power system.
- 4. a) Obtain the small signal modelling of asynchronous machine system.
 - b) Derive the expression for flux linkages in a synchronous machine.
- 5. a) Name the major factors that contribute to the instability of the power system network.
 - b) Discuss the operation of synchronous and asynchronous operation of three phase machine system.
- 6. Discuss the importance of small signal stability with low frequency oscillations of regulated and unregulated system. Give details about the mitigation aspect of stability also.
- 7. Discuss the reasons of voltage stability problems in a synchronous machine. Highlight the study of dynamic analysis of voltage stability.
- 8. Write short notes on:
 - a) Power system stabilizer
 - b) Dynamic equivalent & coherency system.
 - c) Resynchronization

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