

**SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR**  
**(AUTONOMOUS)**  
**M.Tech I Year I Semester Supplementary Examinations February-2025**  
**ELECTRIC DRIVE SYSTEMS**  
**(Power Electronics)**

**Time: 3 Hours****Max. Marks: 60**

(Answer all Five Units 5 x 12 = 60 Marks)

**UNIT-I**

1 Explain briefly about Fundamentals of torque equation. CO1 L2 12M

**OR**

2 Derive the expression for torque equation in electrical drives. CO1 L2 12M

**UNIT-II**

3 Explain briefly about steady state stability of motor load systems. CO2 L2 12M

**OR**

4 What is steady state stability of electric drives and explain it briefly. CO2 L2 12M

**UNIT-III**

5 Explain four quadrant DC Motor drive. CO3 L4 12M

**OR**

6 Design a current controller of DC Motor Drive? CO3 L3 12M

**UNIT-IV**

7 Write the classification of frequency changers and explain. CO4 L2 12M

**OR**

8 Describe the speed control of Inverter-Driven induction motor. CO4 L4 12M

**UNIT-V**

9 Describe the principle of operation of a switched reluctance motor. CO5 L2 12M

**OR**

10 What are the types of electric traction services, Explain briefly? Co5 L2 12M

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