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QUESTION 2: Torque versus speed characteristics for EE and SE Motor:  
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2.a)

Starting torque for EE Motor: 26.7137 Nm

Starting torque for SE Motor: 20.1658 Nm

The starting torque will vary with a change in the rotor resistance R_{2p} .

The starting torque is also proportional to the square of supply voltage V_{th} .

2.b)

Maximum torque for EE Motor: 48.2903 Nm

Maximum torque for SE Motor: 39.0407 Nm

The maximum torque will vary with a change in the supply voltage V_{th} , as it is ✓
independent of R_{2p} .

2.c) Speed at which maximum torque occurs for EE Motor: 1088.2622 rpm

Speed at which maximum torque occurs for SE Motor: 1127.5129 rpm

The value of the rotor circuit resistance R_{2p} determines the speed at which maximum ✓
torque will occur.