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MEE-201 **Roll No. .** | | | | | | | | | | |

M.Tech.

(SEM II) ODD SEMESTER THEORY EXAMINATION, 2015-16

POWER SEMICONDUCTOR CONTROLLED ELECTRIC DRIVES

Time: 3 Hours *Maximum Marks:100*

Note: *This paper contains eight questions. Attempt any FIVE questions.*

Q1. Briefly explain the need for using an electric drive. Comment on the closed loop control of electric drives.

Q2. What are the major performance parameters in the control of an electric drive? Explain the importance of speed and current sensing.

Q3. Write an essay on the chopper based control of DC drives.

Q4. Compare the role of the controllers (P,PI and PID) in the closed loop control of DC drives.

Q5. How many types of slip power recovery schemes are there for the control of AC motor drives? Explain each of them using suitable diagrams.

Q6. Explain the basic configuration of a brushless DC motor drive. Where does it find specific usage?

Q7. Explain the principle of operation of the scalar and Field Oriented control techniques of AC motor.

Q8. Explain the construction and principle of operation of a Switched Reluctance motor.