

**End Semester Examinations - 2015-16 Even Semester - May 2016**

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**14EE2012 Electric Drives and Control**

**Set A**

**Time : 3 hrs**  
**Total Marks: 100**

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1. Explain different methods of speed control of DC motor. (20)
- OR**
2. (a) Describe about braking of DC motor drives. (10)
- (b) With neat circuit diagram and waveforms, explain Single phase fully Controlled rectifier control of DC separately excited motor. (10)
3. Explain the operation of voltage source inverter (VSI) fed induction motor drive with neat sketch. (20)
- OR**
4. (a) Explain with diagrams, different methods of starting of Induction motor. (14)
- (b) Mention the advantages of Induction motor over DC motor. (6)
5. (a) Explain in detail, with the help of a block diagram, the parts of Electrical Drives. (14)
- (b) Write the advantages of Electrical drives. (6)
- OR**
6. (a) Categorize the classes of motor duty. (10)
- (b) With neat diagram explain the closed loop speed control of electric drives. (10)
7. What is load equalization? How does a flywheel tend to equalize the load on the driving motor? (20)
- OR**
8. Discuss the following closed-loop control of drives:
- i) Current Limit Control (5)
- ii) Closed loop torque control (5)
- iii) Closed loop speed control of multi-motor drives (10)
9. With neat diagrams, explain the construction and operation of Brushless DC motors. Mention its advantages and disadvantages. (20)

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**Wishing you All the Best**

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