

**B. Tech. 7th Semester (EE) F. Scheme Examination,**

**December-2017**

**ELECTRIC DRIVES AND CONTROL**

**Paper-EE-403-F**

*Time allowed : 3 hours] [Maximum marks : 100*

**Note :** (i) *Question No. 1 (Section-A) is compulsory.*

(ii) *Attempt four more questions from remaining four sections (B,C,D & E) by selecting at least one question from each section.*

(iii) *Attempt five questions in total.*

**Section-A**

1. (a) Discuss the status of AC and DC drives. 5
- (b) What do you mean by continuous rating of Electric drives. 5
- (c) Explain the braking of DC motor drives. 5
- (d) What do you mean by Acceleration control of Induction Motor drives. 5

**Section-B**

2. Explain the classification, advantage and characteristics of Electric motors. 20
3. Discuss the closed loop control of electric drives. Also explain the Microprocessor based control of electric drives. 20

**Section-C**

4. Discuss multi-quadrant operation of electric drives. Explain the equivalent values of drive parameters. 20
5. What do you mean by load equalization and explain the determination of moment of Inertia of the flywheel. 20

**Section-D**

6. Explain converter fed dc drive and chopper fed dc drive in detail. 20
7. Discuss and explain Permanent Magnet Sinefed drives and Switched Reluctance Machine drives in detail. 20

**Section-E**

8. Explain frequency control, stator voltage control and rotor resistance control of Induction motor drives in detail. 20
9. Discuss static Kramer system for Induction motor drives. 20