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**Code No. OR11/PEED**

**JAWAHARLAL NEHRU TECHNOLOGY UNIVERSITY, HYDERABAD**

**M .Tech. II Semester Supplementary Examinations, March – 2009**

**SOLID STATE ELECTRIC DRIVES**

**(Power Electronics & Electric Drives)**

**Time: 3 hours**

**Max. Marks.60**

**Answer any Five questions**

**All questions carry equal marks**

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1. Explain the open loop V/F control of Induction motor? Draw the Torque-speed characteristics of the drive during this mode?
- 2.a] Briefly explain the importance of vector control technique of induction motor?  
b] Explain feed back vector control technique?
3. Explain constant torque angle control, unity power factor control of PMSM?
4. Discuss split-supply converter topology of Half wave PMBDCM drive?
- 5.a] Explain control modeling of 1- $\Phi$ , 3-  $\Phi$  converters?  
b] Discuss Armature, Field control of dc drives?
6. Discuss the selective harmonic elimination and power factor improvement of DC drives?
7. Obtain the steady state Analysis of chopper controlled d.c motor drive?
8. Explain hysteresis and pwn current controllers of dc drive?

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