**BTE 5**

**Fifth Semester B. Tech Electrical Engineering**

**Examination Aug/Sep-2015**

**Advanced Electrical Machines**

**Time:-3Hours Max. Marks: - 75**

**SECTION-A**

**Answer any five questions. (5\*5)**

1. Briefly write an introductory paragraph on Induction Machine Dynamics.
2. What do you mean by Delayed Commutation?
3. Comment on Variable-Reluctance Motors.
4. What do you mean by Coupling-field reaction?
5. Briefly write about Three-phase Synchronous Machine.
6. Define the Single-Phase load on Three-Phase Transformers.
7. Clarify the Synchronizing by a Synchroscope.

**SECTION-B**

**Answer any two questions. (10\*2)**

1. Describe the Parallel Operation of Three-Phase Transformers.
2. Evaluate the Mechanical Forces in Transformers
3. Explain the principle of Energy Conversion.

**SECTION-C**

**Answer any two questions. (15\*2)**

1. Determine the graphical picture of Armature Reaction. What are the effects of the armature m. m. f?
2. Write in detail about Doubly-excited Magnetic Systems.
3. Discuss the speed control by varying the armature terminal voltage.