**BEME5-IV**

**Seventh Semester B. Tech. Mechanical Engineering**

**Examination Aug/Sep-2015**

**Elective- Machine Vibration Analysis**

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

**SECTION-A**

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

1. Give a brief Introduction to the Fundamentals of Vibrations.
2. What do you mean by Energy Dissipated by Damping?
3. Draw & define Dry Friction Damper.
4. Define Viscous Dampers.
5. Briefly write about Static and Dynamic Coupling.
6. Define the method of Matrix Iteration for determining Eigen Values and Eigen Vectors.
7. How to add two simple Harmonic motion of the same frequency?

**SECTION-B**

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

1. Discuss Model Analysis in detail.
2. Explain equivalent Stiffness of Spring Combinations with help of examples.
3. Elaborate Rayleigh’s method of a Multi-Degree of freedom system.

**SECTION-C**

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

1. Elaborate the Vibration Measuring Instruments.
2. Discuss the Principle Modes of Vibration.
3. Give a detail account on Non-Liner Vibrations.