**REG.NO:**

**SEMBODAI RUKMANI VARATHARAJAN ENGINEERING COLLEGE**

**ACADEMIC YEAR 2014-2015/ODD SEMESTER**

**CYCLE TEST – I AUG-2014**

**DEPARTMENT OF MECHANICAL ENGINEERING**

**SUBJECT CODE/TITLE:** ME2305 APPLIED HYDRAULICS AND PNEUMATICS

**YEAR/SEM:** III/V **DATE: 13-08-14**

**DURATION:** 1 ½ HOURS **MAX.MARKS:** 50

**Answer ALL the Questions**

**PART A (5X2=10)**

1. State Pascal’s l aw.
2. List any four application of fluid power system.
3. Explain the term friction factor.
4. List the factors to be considered in the pump selection?
5. What are pump characteristic curves? Draw the same for the positive displacement Pump.

**PART B (40 MARKS)**

1. i) How to calculate frictional losses in common valve and fittings. (8)

ii) Define Reynolds number? (2)

iii) Differentiate between laminar and turbulent fluid flow. (6)

1. (i) Explain the factors which affect the selection of pumps and discuss in detail the classification and performance features of different types of hydraulic pumps (8)

ii) What is cylinder cushioning? Explain with diagram (8)

1. Explain the construction and working of gear pump (8)