**REG.NO:**

**SEMBODAI RUKMANI VARATHARAJAN ENGINEERING COLLEGE**

**ACADEMIC YEAR 2013-2014/ODD SEMESTER**

**CYCLE TEST – I**

**DEPARTMENT OF MECHANICAL ENGINEERING**

SET-A

**SUBJECT CODE/TITLE:** **ME 2204 –MECHATRONICS**

**YEAR/SEM:** IV/VII **DATE:**

**DURATION:** 90 Mins **MAX.MARKS:** 50

 **PART-A 5x2=10 Marks**

1. What are the basic elements of a measurement system and sketch it block diagram?

2. Define the term accuracy & precision?

3. What is MOSFET? Stable its fractures?

4. What is a stepper motor?

5. List down the feature of JFET.

**PART-B**

6. (a) Explain the working principle of stepper motor in half step mode **(8)**

 (b) Explain fluid system building blocks **(8)**

**(OR)**

7. (a) How will you specify a stepper motor? Explain the general characteristics of a stepper motor **(16)**

8. (a) Identify the various elements of a closed loop system in automatic water level controller and describe their functions **(8)**

 (b) Explain the function of a capacitive sensor in a robot end effect **(8)**

**(OR)**

9. (a) Explain the dynamic characteristics of transducers **(8)**

 (b) Explain any three sensors used for temperature measurement **(8)**

10.a) Compare open and closed loop system with suitable example. **(8)**