

Q.P. Code :09877

(3 Hours)

[Total marks: 80]

- N.B.: (1) Question no.1 is compulsory
(2) Attempt any three questions from remaining.
(3) Figures to the right indicates full marks
(4) Assume suitable data if required. Justify the same.

- Q.1 A) Define the terms related to sensors: 5
Static error, Precision, Reproducibility, Threshold
B) Explain Hall Effect Sensors 5
C) Explain actuator range and power consideration. 5
D) Draw block diagram showing Components of hydraulic system 5
- Q.2 A) Explain different types of Errors in signal conditioning. 10
B) Explain angular velocity measurement using tachometer. 10
- Q.3 A) Explain magnetic flow meter in detail. 10
B) How DC motor can be used to Drive actuating system? 10
- Q.4 A) Differentiate between Analog and Digital Sensors. 10
B) Explain any one method for acceleration measurement. 10
- Q.5 A) Explain stepper motor drive in brief 10
B) Explain how potentiometer can be used for displacement measurement. 10
- Q.6 Write short notes on: 20
A) Optical Light sensors
B) Solenoid
C) Servo Amplifier