

Code: 9A10501

B.Tech III Year I Semester (R09) Supplementary Examinations December 2015

SENSORS & SIGNAL CONDITIONING

(Common to E.Con.E & EIE)

Time: 3 hours

Max. Marks: 70

Answer any FIVE questions
All questions carry equal marks

- 1 (a) Discuss the methods of corrections.
(b) List the dynamic characteristics of measurement system.
(c) List the static characteristics of measurement systems.
- 2 (a) Explain the construction and working of LDR.
(b) What are the practical applications of strain gauges? Explain its features.
- 3 (a) Draw and explain the Wheatstone bridge. Obtain the equation for balance of the bridge.
(b) Discuss about different interference types.
- 4 (a) What are the types of capacitive sensors? Explain.
(b) Explain the function of hall effect sensors.
- 5 (a) What is digital to resolver converter? Explain its features.
(b) Give the significance of carrier amplifiers.
- 6 (a) What is a piezoelectric effect? Discuss its role in piezoelectric sensor.
(b) Give explanatory notes of a photo voltaic sensor with a neat figure.
- 7 (a) Draw a neat figure and explain the chopper amplifier.
(b) What is the function of an electro meter amplifier and list its applications?
- 8 (a) Discuss the types of CCD imaging sensors.
(b) Write short notes on photo diodes and photo transistors.
