

CONTINUOUS INTERNAL EVALUATION- 2

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| Dept: Electronics and Communication | Sem / Div: 6 th Sem | Sub: Sensors and Signal Conditioning | S Code:18EC652 |
| Date: 26-06-2021 | Time: 9:30-11:00 AM | Max Marks: 40 | Open Elective: Y |
| Note: Answer any 2 full questions, choosing one full question from each part. | | | |

| QN | Questions | Marks | RBT | COs |
|---------------|---|-------|-----|-----|
| PART A | | | | |
| 1 | a Explain Resolver-to-Digital Converters with block diagram. | 8 | L2 | CO2 |
| | b Explain Digital-to-Resolver Converters with block diagram. | 8 | L2 | CO2 |
| | c Explain Fundamentals and Structure of Carrier Amplifiers. | 4 | L1 | CO1 |
| OR | | | | |
| 2 | a Explain different arrangements for capacitive sensors with equations. | 4 | L1 | CO1 |
| | b Explain Thermoelectric Sensors with Thermocouple Laws. | 10 | L3 | CO2 |
| | c Explain Piezoelectric Sensors with related equations. | 6 | L3 | CO2 |
| PART B | | | | |
| 3 | a Explain effects of a mechanical stress and piezoelectric effect at low frequencies. | 4 | L2 | CO1 |
| | b Explain AC Bridge related sensitivity and linearity concepts | 8 | L1 | CO1 |
| | c Explain Electrochemical Sensors with related diagram. | 8 | L3 | CO2 |
| OR | | | | |
| 4 | a Explain PYROELECTRIC Sensors with related equations. | 10 | L3 | CO2 |
| | b Explain PHOTOVOLTAIC Sensors with diagram. | 10 | L3 | CO2 |