

R16

Code No: 138GY

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech IV Year II Semester Examinations, September - 2020

SENSORS AND TRANSDUCERS

(Electronics and Communication Engineering)

Time: 2 Hours

Max. Marks: 75

**Answer any Five Questions
All Questions Carry Equal Marks**

1. What is a measurement system? Explain various elements of a measurement system. [15]
2. Explain the class of standards available for use and calibration process. [15]
3. Explain the static characteristics of a transducer and elaborate each characteristics. [15]
4. Obtain the mathematical modelling of a transducer. [15]
5. Explain the principle of strain Gauge. Derive the relevant mathematical expressions. Explain the working of any one type of strain Gauge. [15]
6. Explain the construction, working principle and characteristics of Thermistors. [15]
7. State the principle of operation of capacitive transducer. Explain different types of capacitor transducers. [15]
8. Explain how torque and pressure can be measured using piezoelectric transducer? [15]

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