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Code No: 156DK

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech III Year II Semester Examinations, August/September - 2021

AG AG AG AG AG AG AG AG AG AG

Time: 3 Hours

Max. Marks: 75

**BASICS OF SENSORS TECHNOLOGY**  
**(Electronics and Communication Engineering)**

Answer any five questions

All questions carry equal marks

1. What is RTD? Explain the relationship between resistance and temperature for the RTD  
with Temperature resistance curve [15]

2.a) Explain the working principle of electromagnetic sensor.  
b) Give the differences between variable capacitor and differential capacitor sensors. [8+7]

3. What is piezoelectric effect? Explain the construction and working of piezoelectric type  
sensor. Also give its applications. [15]

4.a) Define thermal sensor. Classify various temperature sensors.  
b) With a neat diagram explain about the working of thermocouple. [7+8]

5. Explain the method of force measurement using Strain gauge load cell method. [15]

6. With a neat diagram, explain the construction and working of accelerometer. [15]

7. State different methods to measure viscosity. Explain any one method. [15]

8.a) Explain the interfacing of force sensor.  
b) Explain how sensors can be calibrated. [8+7]

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