

SRIVIDYA COLLEGE OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Subject : MEMS
Class : IV EEE
Faculty Members: J.R.BINDHU AP/EEE

UNIT III : MICROSENSORS

PART A

1. Differentiate sensor and transducer with example.
2. What are all factors to be considered to select a transducer?
3. Discriminate Biosensor and Biomedical sensor.
4. List out a few typical chemical sensors.
5. How do chemiresistor sensors work?
6. How CTE finds a significant role in Bimetallic strip?
7. Define a transducer.
8. How do chemicapacitor sensors work?
9. Write down the value of permittivity (ϵ_0) of free space.
10. Where optical sensors are used?
11. State Seebeck effect.
12. Mention any four types of Thermocouples and its metal composition.
13. What is a thermopile?

PART B

1. Explain the principle of acoustic wave sensor and a Biomedical sensor.
 2. Write a note on Biosensors and Biomedical sensors.
 3. Categorize the chemical sensors and explain their principle of operation.
 4. Explain in detail about thermal sensors with their composition of metals
 5. What are the types of optical sensors? Illustrate with necessary diagrams.
- How do pressure sensors find a major role in MEMS devices? Explain