

B. Voc. Automotive Mechatronics**Subject: Sensor and Transducer****Subject Code: ABME-201****Semester-3rd****Theory (External): 35****Time: 03 hours****Instructions to the Students**

1. This Question paper consists of two Sections. All sections are compulsory.
2. Section A comprises 10 questions of objective type in nature. All questions are compulsory. Each question carries 1 mark.
3. Section B comprises 6 essay type questions out of which students need to do any 5. Each question carries 5 marks.
4. Read the questions carefully and write the answers in the answer sheets provided.
5. Do not write anything on the question paper.
6. Wherever necessary, the diagram drawn should be neat and properly labelled

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SECTION –A (OBJECTIVE TYPE QUESTIONS)

(10x1=10 Marks)

- 1. Define sensor along with its various classification.**
- 2. Explain the importance of reliability in sensor.**
- 3. Write down the various types of variable inductor in brief.**
- 4. Define digital displacement sensor.**
- 5. Explain load cell in brief.**
- 6. Write a brief note on various types of tactile sensors.**
- 7. Explain anemometer in brief.**
- 8. Explain electromagnetic flow meter**
- 9. Write down the salient feature of resistance wire thermometer.**
- 10. Write short note on gyroscope.**

SECTION –B (ESSAY TYPE QUESTIONS)

(5x5=25 Marks)

- 1. Explain the process of calibration of magnetic, chemical and biological sensors.**
- 2. Explain the use of Hall effect transducer for the measurement of displacement.**
- 3. What do you mean by Piezoelectric effect? Explain piezoelectric transducer in detail.**
- 4. What do you mean by dynamometer? Explain its various types in detail.**
- 5. Write a brief note on ultrasonic flow transducer**
- 6. What are the various devices for measurement of temperature? Explain them in brief.**

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