

BACHELOR OF VOCATION
Robotics and Automation
Subject: Sensors & Instrumentation
Subject Code: DBEC-205
Semester: Third
January 2021
Theory (External): 35 Marks
Time: 03 Hours

2101274

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 8 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

Roll Number											

SECTION –A (SHORT/OBJECTIVE TYPE QUESTIONS)
(10x1=10 Marks)

- A) What do you mean by Repeatability?
- B) What is the definition of a sensor?
- C) Name the different types of Transducer?
- D) What do you mean by Proximity Sensors?
- E) What are Accelerometers?
- F) What do you understand by Sensitivity for sensors?
- G) What is use of sensors in Robotics?
- H) Write some applications of sensors?
- I) What is use of sensors in Heat and light?
- J) What do you mean by Non-Optical Sensor?

SECTION -B (ESSAY TYPE QUESTIONS)
(5x5=25 Marks)

- Q 1 What is the need of sensors in automation? Explain.
- Q 2 Explain the International standards for measurement?
- Q 3 Explain the accuracy and range in detail?
- Q 4 Explain the different Range Sensing, Touch and Slip Sensors?
- Q 5 Explain Speech or Voice Recognition Systems in detail?
- Q 6 What do you mean by Robot guidance with vision system?
- Q 7 Write various applications of sensor and Transducers in detail?
- Q 8 Explain Proximity Sensors – Contact and Non-Contact Sensors?

“END OF PAPER”