## PRE-LAB IOT Projects using Python (CSE 4110) ASSIGNMENT Date: Experiment — 2

## Answer all the Questions in brief with some appropriate examples.

- 1) With at least one example, give a comparison between Element, Component, Apparatus and Equipment.
- 2) Differentiate between Active and Passive component or device (with suitable example).
- 3) In a printed circuit board, all the components should be active in nature. (True or False). Justify your answer.
- 4) Define and write at least one application for the following electronic components and Equipment.
  - a) Resistor
  - b) Capacitor
  - c) Diode
  - d) Transistor
  - e) Potentiometer
  - f) Multi-meter
  - g) Breadboard
- 5) What is the physical significance of colour-code in electronic Components?
- 6) What is biasing?
- 7) Differentiate between forward and reverse biasing.
- 8) In terms of application, give a comparison between Diode and Transistor.
- 9) With a neat sketch, differentiate between Alternating Current (AC) and Direct Current (DC).
- 10) What is error? Give a comparison between absolute and relative error.
- 11) What is Morse code used for?
- 12) Who has to learn Morse code?
- 13) Is Morse code still used in 2022?