

- (c) Explain the any application of modulation for communication in signal and system. **07**

OR

- Q.4** (a) What is Aliasing? **03**
(b) What are the effects of under sampling of a signal? **04**
(c) Explain in detail of mathematical model for reconstruction. **07**

- Q.5** (a) What is IOT? Draw the block diagram of any application of an IOT based system. **03**
(b) Explain with diagram any four sensors which used in IOT application **04**
(c) Explain with circuit diagram of any application based on Arduino with sensor & actuators. **07**

OR

- Q.5** (a) Explain Input and output pins of Arduino. **03**
(b) Explain the different types of Actuators. **04**
(c) Explain with the circuit diagram of temperature measurement 0 to 100 °C using LM35 with 16x2 LCD display using Arduino. Also write the program. **07**
