

# **BHARATI VIDYAPEETH INSTITUTE OF TECHNOLOGY**

## **Question Bank (K Scheme-BEE)**

**Course Name: Computer Engineering**

**Semester:II**

**Course Title: Basic Electrical and Electronics**

**Course Code: 312302**

---

### **UNIT - III: Electrical Safety and Protective Devices (C03 - 10 Marks)**

#### **2 Marks**

1. List the types of fuses.
2. State the function of MCB, ELCB
3. Define Earthing and give Its types
4. Write any four factors affecting earth resistances.
5. State any 2 methods of reducing earth resistance.

#### **4 Marks**

6. Write any 4 IE rules relevant to Earthing.
7. Explain SFU AND FSU
8. Describe the operation of fuse
9. Give the working of MCCB.
10. State the use Multimeter in measurement of electrical parameters

## **UNIT-V :Transistors [CO 5 - 12 Marks]**

### **2 Marks**

1. Draw the symbol BJT and FET.
2. List specifications of BJT.
3. Draw the characteristics of transistor in CE Configuration
4. Give the types of BJT AND FET

### **4 Marks**

5. Compare CB, CE, CC configurations of transistor.
6. Derive the relationship between  $\alpha$  and  $\beta$  of transistor.
7. Describe the working Principle of NPN Transistor with neat labelled diagram.
8. Explain Transistor as Switch
9. Explain the working of N -channel JFET.
10. Draw and Explain drain characteristics of N -channel JFET.

## **UNIT-VI: Sensors and Transducers [CO6 - 10 Marks]**

### **2 Marks**

1. Define Transducer and Sensor.
2. Give the classification of Sensor
3. Give the classification of Transducer
4. Compare between Active and Passive transducer.
5. Define Analog transducer and Digital transducer.

### **4 Marks**

6. State selection criteria of transducer.
7. Define
  - a. Active Transducer
  - b. Passive Transducers
  - c. Primary Transducer
  - d. Secondary Transducer
8. Define and Give example of
  - a. Thermal Sensor
  - b. Optical Sensor
  - c. Electrical Sensor

