## BACHELOR IN PROSTHETICS AND ORTHOTICS FIRST YEAR PAPER VI – BASIC ELECTRONICS

Q.P. Code: 802456

Time: Three Hours Maximum: 100 Marks

**Answer All questions** 

I. Elaborate on:  $(3 \times 10 = 30)$ 

1. Transformer and its types.

- 2. Single Phase and Three Phase Supply System.
- 3. Myo-electrodes and its application in the field of P and O.

II. Write notes on:  $(8 \times 5 = 40)$ 

- 1. Voltage, Current, Resistance, Charge and Power.
- 2. Calculate the total resistance for the 4 resistors value of 10 ohms each are connected in parallel.
- 3. A transformer has 200 turns of the secondary winding and 10 turns of the Primary winding. Find out the secondary voltage for the given primary voltage 150 V.
- 4. Energy Band diagram of Semiconductor.
- 5. Voltage Gain and Current Gain in Amplifier.
- 6. Negative feedback and Positive feedback
- 7. Fuse.
- 8. Muscle Action Potential.

## III. Short answers on:

 $(10 \times 3 = 30)$ 

- 1. Ohm's Law.
- 2. Sine Wave.
- 3. Frequency.
- 4. Voltage Ratio in Transformer.
- 5. Intrinsic Semiconductor.
- 6. Insulators.
- 7. Transducer.
- 8. Microprocessor.
- 9. Surface Electrodes.
- 10. Myo-electricity.