Avinashilingam Institute for Home Science and Higher Education for Women
Coimbatore- 641043.
Continuous Internal Assessment Test –II April - 2025
SEMESTER - II

Class : I UG **Time: 2 hours**
Major: BPT **Max. Marks: 60**

22BPTC09-Basic and Applied Physics for Physiotherapy-II

Course Outcomes

CO1: Knowledge about magnetism and condenser
CO2: Learn about the laws
CO3: Understand about electricity-thermionic valves, semiconductor devices and electronic circuits and its therapeutic uses and importance of currents in treatment.
CO4: Recollect about alternating and static currents along with its physiological and therapeutic effects.
CO5: Understand the medical instrumentations for physical therapy and low frequency current in therapeutic interventions.

Part A

Choose the correct answer **6x1=6**

1. The high frequency current CO5K1
   a. Shortwave diathermy
   b. Interferential therapy
   c. TENS
   d. Electrical stimulation
2. Extrinsic semiconductor types CO4K1
   a. N and P type
   b. A and C type
   c. Y and Z type
   d. S and T type
3. A constant current flows, the nerve adapts itself is known as CO4K1
   a. Accommodation
   b. Strength
   c. Contraction
   d. relaxation
4. The amplitude of current flow remains the same for several seconds or minutes CO4K1
   a. continuous modulation b. Interrupted modulation Lambert's law
   c. brust modulation d. Ramping modulation
5. In a Circuit Ammeter should be connected in Connection CO4 K1
   a. Parallel b. Series c. Both a and b d. Neither b or a
6. The semiconductor diode used as CO3 K1
   a. Oscillator b. Amplifier c. Rectifier d. Modulator

Part – B

Answer the following

Answer should not exceed 400 words or two pages **3x6=18**

7. a. Explain types of oscillators (or) CO3K1
   b. Write a short notes on wheat stone bridge CO4K1
8. a. Construction of cathode ray oscilloscope (or) CO3K2
   b. What are the physiological effects of heating the tissue CO4K2
9. a. Define interrupted direct current. (or) CO5K1
   b. function and application of the wheatstone bridge CO4K2

Part C

Answer the following **3x12=36**

Answer should not exceed 800 words or four pages

10 a. What is electromagnetic and magnetic –definition, description, physiological effects, Pathological Effects and dangers. (or) CO4K1
   b. Write functions and application of ammeter and volt meter CO4K1
11.a. Illustrate the semiconductor devices- intrinsic and extrinsic semiconductor (or) CO3K2
   b. Explain the generation, circuit diagram and testing of any two medical instrument in physiotherapy. CO5K2
12.a. Explain the Half wave rectifier and full wave rectifier. (or) CO3K2
   b. Describe in detail about the medium and low frequency current . CO5K3

Copies : 35 **NAME OF THE STAFF:G.Aswini**