

- Q.18 Explain Inductive method application of short wave diathermy.
- Q.19 Explain any two Therapeutic instruments which are used in operation theatre.
- Q.20 Explain the working of fluidotherapy with its applications.
- Q.21 What are the Phototherapy . Explain different types of phototherapy.
- Q.22 Explain wax therapy unit. Explain its working.

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### 5th Sem. / Medical Electronics

#### Subject : Therapeutic Medical Instrumentation (TMI)

Time : 3 Hrs.

M.M. : 60

### SECTION-A

**Note:** Multiple choice questions. All questions are compulsory  
(6x1=6)

### SECTION-D

**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

- Q.23 What are Microwave diathermy . Explain the production of microwave with block circuit diagram.
- Q.24 Explain the Electromagnetic spectrum and wave form used in electromagnetic spectrum.
- Q.25 Explain the safety issues related to therapeutic equipment.

Q.1 What is a primary benefit of ultrasonic diathermy.

- a) It creates cold sensations .
- b) It increases heart rate.
- c) It can help alleviate pain.
- d) It uses low-frequency sound waves.

Q.2 What is the purpose of Transcutaneous Electrical Nerve Stimulation (TENS ) in electrotherapy

- a) To block pain signals by stimulating nerves.
- b) To deliver medications through the skin .
- c) To generate heat in tissues.
- d) To improve muscle strength and tone.

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**Q.3** What can ultraviolet radiation cause to human skin.

- a) Sunburn and skin cancer
- b) Growth of nails
- c) Increase in body temperature
- d) Tinting of hair.

**Q.4** Which of the following is NOT a benefit of high-frequency current therapy.

- a) Increased range of motion
- b) Reduces the need for water
- c) Pain relief
- d) Reduces muscle spasms.

**Q.5** What does a magnetic stimulator use to study brain function .

- a) Sound waves
- b) Powerful magnetic fields
- c) Light pulses
- d) Electric shocks.

**Q.6** Which of these conditions is commonly treated with ultrasonic diathermy.

- a) Arthritis
- b) Asthma
- c) Diabetes
- d) Headache.

## **SECTION-B**

**Note:** Objective/ Completion type questions. All questions are compulsory. (6x1=6)

**Q.7** What is the electromagnetic spectrum .

**Q.8** What is an ultrasonic simulator.

**Q.9** What is electrotherapy.

**Q.10** What is a hydro collator unit.

**Q.11** What is a radiant warmer.

**Q.12** What is a traction unit

## **SECTION-C**

**Note:** Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

**Q.13** Explain Capacitive plate method application of short wave diathermy.

**Q.14** What is High frequency current therapy and how it works.

**Q.15** Explain the different types of electromagnetic radiation found in the spectrum.

**Q.16** What are Diathermy . Explain the circuit diagram of Short wave diathermy.

**Q.17** What is the role of electric stimulation in muscle and nerve response.