**Assignment for Viva (Spring 2020) (DPT 6th Semester)**

**Course Title: Physical Agents and Electrotherapy-ll Instructor: Dr. Maria Feroze**

**Note:**

* **Upload your assignment on SIC till 10th July 11:59 p.m.**
* **Copying the content from net or book is not allowed.**
* **Write the assignment in MS word/pdf.**
* **Asfandiyar I'd 14020**

**Q1. What is the purpose of studying Physical Agents and Electrotherapy?**

Answer:-Physical agent Electrophysical agents such as radiofrequency electromagnetic fields (shortwave and microwave), ultrasound, laser and electrical stimulation are used for therapeutic purpose in physiotherapy departments. They are primarily used for treating a wide range of musculoskeletal injuries**.**

It mean that when we place something physically on the surface of skin for intervention purposes is known as physical agent

It include heat, cold electrical sound, light and mechanical etc

**Purposes of physical agent**

**Hot pack**

-They are designed to carry heat between 1 to 8 hours

-These packs are responsible for increasing blood flow and promote healing

-They also decrease the tightness of tissue and pain

**Whirlpool**

-It contain warm water it promote the healing and increase the blood flow towards the affected area.also used in wounds care.

**Cold packs**

Used in acute injuries. They decrease the blood flow by decreasing the diameters of blood vessels.

This causes pain relief and a decrease in swelling

**Paraffin**

Paraffin is a wax that can be used to treat pain and for stiffness in similar areas like the hand and feet.

**Infrared lamps**

It transmit electromagnetic radiation that penetrates the tissue an area of pain

**Electrotheraphy**

-In which we use electric current passing through the body which stimulate nerve and muscle

**Purposes of electrotheraphy**

**Pain relief**

It is used to treat both acute and chronic pain. We know that signal of pain fiber transmission of properiception fiber

So when we apply the electrotheraphy modeilty it block the fiber of pain transmission. In this way we reduce the pain

**Diathermy**

Is used for many therapitic purposes which include swelling, pain, improving range of motion and flexibility.

**Ultrasound**

It generate both thermal and non thermal effect

Use for repairing the tissue

**Phonophorosis**

It is a topical medication which delivers drug to effected area.

Used to decrease inflammation

**II) stimulation of physiochemical changes**

-it induce the physiological and chemical change by introduce heat into the deep tissue

-this healing increase the blood flow to the affected area and improve drainage

**INDICATION**

-inflimmatory orthopedic condition

-bronchitis

- otitis Media

-sinusitis

- prostatitis

- psoriasis

**Modalities are used**

- diathermy and radiation

**Indications**

Past operative incision pain

Fructur pain

Pain associated with labour and delivery

Foot pain

Tendinitis pain

Back and neck pain

Arthritic pain

**III)stimulation of muscle contractions**.

**INDICATION**

-healthy innervated muscle at risk of atrophy from immobilization or injury

-Denervated (lacking natural neural connection muscle that might atrophy or degenerate

-low back spasms

Modalities are used

-NMES and FES

**Q2. Which one is the best modality to treat pain and why?**

**Answer**

-The best modality for management of pain is Short wave diathermy because it penetrate deep up to 5CM to the tissue

-also it covers the large areas

-it heating the deeper tissue without heating superficial tissue .

-it uses high frequency electric current that produce deep heat inside a target tissue

-it can reach areas as deep as two inches beneath the skin surface