

**BACHELOR OF PHYSIOTHERAPY
SECOND SEMESTER
ELECTROTHERAPY - I
BPT - 204**

(USE SEPARATE ANSWER SCRIPTS FOR OBJECTIVE & DESCRIPTIVE)

Duration: 3 hrs.

Full Marks: 70

[PART-A: Objective]

Time: 20 min.

Marks: 20

Choose the correct answer from the following:

1×20=20

1. Burn in electrotherapy occurs due to_____.
 - a. Overdose
 - b. Inability to dissipate heat due to Peripheral Vascular Disease
 - c. Loss of Sensation
 - d. All of the above
2. Rheobase is:
 - a. Maximum tolerable current for a nerve impulse at long duration
 - b. Minimum current for a nerve impulse at short duration
 - c. Minimum current for a nerve impulse at long duration
 - d. None of the above
3. The temperature of PWB is
 - a. 30-40 C
 - b. 40-50 C
 - c. 25-55 C
 - d. None of these
4. The mode of heat transfer by hot pack
 - a. Conduction
 - b. Convection
 - c. Evaporation
 - d. Radiation
5. The Hydro collator packs are heated up to_____ temperature.
 - a. 70-80 C
 - b. 30-40 C
 - c. 90-100 C
 - d. 50-60 C
6. Which is superficial heating modality?
 - a. Moist Hot Pack
 - b. Short wave Diathermy
 - c. Paraffin Wax Bath
 - d. Both A & C
7. Heat is used prior to passive stretching exercises because of
 - a. Analgesic effect, reduction of viscosity and decrease collagen extensibility
 - b. Analgesic effect, reduction of viscosity and increase collagen extensibility
 - c. Analgesic effect, increase of viscosity and increase collagen extensibility
 - d. Analgesic effect, increase of viscosity, sedative effect and reduction of muscle spasm.
8. The loosing of heat from body by sweating through
 - a. Conduction
 - b. Convection
 - c. Radiation
 - d. Evaporation

9. Heat is regulated by
 - a. Shivering
 - b. Brown adipose tissue
 - c. Sweating
 - d. All of the above
10. In wax bath the temperature is kept at a pre set temperature by using
 - a. Alcohol in glass thermometer
 - b. Thermostat
 - c. Thermistor
 - d. None of the above
11. The effect of cryotherapy is
 - a. Vasodilation
 - b. Increased Blood Pressure
 - c. Vasoconstriction
 - d. None
12. Fluido therapy contains
 - a. Warm water in large cabinet.
 - b. Water in room temp in large cabinet.
 - c. Cold water in large cabinet.
 - d. Mass of tiny cellulose particles suspended in moving air
13. Which therapeutic effect will differentiate between cold and heat treatments?
 - a. Relieving pain
 - b. Reduction of spasticity
 - c. Reduction of spasm
 - d. None of above
14. The extent of reduction in tissue temperature following cryotherapy depend on_
 - a. Nature of substance applied and region of the body to which it is applied
 - b. Temperature difference between the substance and the skin
 - c. Duration of application
 - d. All of the above
15. _____current is used for stimulation of innervated muscles.
 - a. Faradic
 - b. Faradic Type
 - c. Surged Faradic
 - d. Interrupted Galvanic
16. Hydrocollator packs are made up of bentonite crystals because
 - a. they can absorb heat better than sand
 - b. do not get heavy
 - c. Both a & b are correct
 - d. Both a & b are incorrect
17. A contraindication for heat would be
 - a. Chronic Arthritis
 - b. Acute Edema
 - c. Hyperemia
 - d. Hypertonicity
18. Moist heat packs have which of the following effects
 - a. Decreased blood flow
 - b. Increased Edema
 - c. Increased muscle contraction
 - d. Decreased heart rate
19. Contraindication for cryotherapy is
 - a. Peripheral vascular disease
 - b. Impaired sensation
 - c. Both are correct
 - d. Both are incorrect
20. Which is true for contrast bath
 - a. Starts with warm and ends with warm
 - b. Cooling time and warming time are equal
 - c. Imitates muscle contraction
 - d. Both a & c are correct

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(Part-B : Descriptive)

Time : 2 hrs. 40 min.

Marks : 50

[Answer question no.1 & any four (4) from the rest]

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| 1. Explain Contrast Bath along with methods of Application, Uses, Indications and Contraindications. | 10 |
| 2. a) Explain Modes of Heat transfer and Indications of Heat therapy.
b) Explain methods of application of Cryotherapy along with Lewis Hunting Reaction. | 5+5=10 |
| 3. a) Explain SD Curve and its uses. Also explain types of Curves.
b) Explain types of TENS along with its indications and Contraindications. | 5+5=10 |
| 4. a) Moist Heat Therapy along with its Indications and Contraindications.
b) Methods of Application of Wax Therapy | 5+5=10 |
| 5. a) Explain Faradic Current and its techniques of Application
b) Explain the basic types of Current | 5+5=10 |
| 6. a) Explain Fluidotherapy along with its Indications and Contraindications
b) Whirl pool Bath- Indications, Contraindications and Precautions | 5+5=10 |
| 7. a) Explain Action Potential & Resting Membrane Potential of a Nerve
b) Physiological Effects of Heat | 5+5=10 |
| 8. a) Therapeutic Effects of Faradic Currents
b) FG Test | 5+5=10 |

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