

**63115**

First B.P.T.H. (2012) Examination, Winter 2018
FUNDAMENTALS OF ELECTROTHERAPY

Total Duration : Section A + B = 3 Hours

Total Marks : 80

SECTION - A and SECTION - B

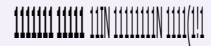
- Instructions :**
- 1) Use **blue/black** ball point pen only.
 - 2) **Do not** write anything on the **blank portion of the question paper**.
If written anything, such type of act will be considered as an attempt to resort to unfair means.
 - 3) **All** questions are **compulsory**.
 - 4) The number to the **right** indicates **full** marks.
 - 5) Draw diagrams **wherever** necessary.
 - 6) Distribution of syllabus in Question Paper is only meant to cover entire syllabus within the stipulated frame. The Question paper pattern is a mere guideline. Questions can be asked from any paper's syllabus into any question paper. Students cannot claim that the Question is out of syllabus. As it is only for the placement sake, the distribution has been done.
 - 7) **Use** a common answer book for **all** Sections.

SECTION "A" (SAQ) (50 Marks)

1. Short answer question (**any five** out of six) : **(5x3=15)**
 - a) Describe modes of heat transfer.
 - b) What is Latent heat?
 - c) State Inverse square law with application.
 - d) Describe Action potential.
 - e) Discuss the properties of LASER.
 - f) Define Faradic and Galvanic current.
2. Short answer question (**any five** out of six) : **(5x7=35)**
 - a) Describe various generators of Infra Red radiation.
 - b) Describe Contrast bath and its application.
 - c) Describe working and importance of Kromayer Lamp.
 - d) Production of He-Ne Laser.
 - e) Short answer on Hydrocollator hot packs and its application.
 - f) Describe production of therapeutic Ultrasound.

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SECTION "B" (LAO) (30 Marks)

3. Long answer question (any one out of two) : (1 x 15 = 15)
- a) Discuss in detail physiological effects and therapeutic effects of heat therapy. Add a note on various methods of application of Paraffin wax bath. (9+6)
 - b) Define Short Wave Diathermy (S.W.D). Discuss in detail about valve circuit diagram for production of S.W.D along with different types of electrodes used. (2+9+4)
4. Long answer question (**any one** out of two) : (1x15=15)
- a) What is Cryotherapy ? Write down the physiological and therapeutic effects of cryotherapy. Add a note on various methods of application of cryotherapy. (1+9+5)
 - b) Classify currents based on frequency with examples. Add a note on pain modulation theories. Discuss about various modes of TENS. (6+4+5)
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