

**63 15****First B.P.Th. 2012 Examination, Winter 2017
FUNDAMENTALS OF ELECTRO THERAPY**

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 answerbook for **all** Sections.

SECTION — A SAO (50 Marks)

1. Short answer question (**any five** out of six) : **(5x3=15)**
 - a) Define cosine law and grothus law.
 - b) Define electric shock.
 - c) Write a note on coupling media used for delivering Ultrasound.
 - d) Explain the use of cartridge fuse.
 - e) Define capacitance and state its unit.
 - f) Write the types of Infrared Lamps with their corresponding wave lengths.
2. Short answer question (**any five** out of six) : **(5x7=35)**
 - a) Explain the laws governing electromagnetic radiation.
 - b) Differentiate between faradic and galvanic current.
 - c) Write the production of ultraviolet radiations in kromayers lamp.
 - d) Explain the principle and production of interferential therapy.
 - e) Write the full form of LASER and write the properties of laser.
 - f) Explain the construction of hydrocolator packs.

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SECTION — B LAO (30 Marks)

3. Long answer question (**any one** out of two) : (1 x1 5=15)

a) Define cryotherapy. Explain its physiological effects. Explain any three methods of application of cryotherapy. (2+7+6)

b) What are superficial heating agents ? Add a note on its physiological effects. Explain in detail about paraffin wax bath therapy. (2+7+6)

4. Long answer question (**any one** out of two) : (1 xi 5=15)

a) Write the therapeutic frequencies of Ultrasound. Explain the production and draw the panel diagram. (2+7+6)

b) Write the frequency and wave length of short wave diathermy. Write the production of SWD. Draw the panel diagram of the same. (2+8+5)
