FUNDAMENTALS OF ELECTRO THERAPY

Total Duration: Section A + B = 3 Hours
Total Marks: 80

SECTION - A & 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 (SAQ) (50 Marks)

1. Short answer question (any five out of six):
   a) Define resting membrane potential
   b) Describe briefly construction of triode valve
   c) Enumerate the properties of a magnet
   d) Define law of Grothus & latent heat
   e) Briefly describe reverse peizo electric effect
   f) Describe in brief CR timing circuit

   \[5 \times 3 = 15\]

2. Short answer question (any five out of six):

   \[5 \times 7 = 35\]
   a) Describe different types of TENS with neat labeled diagram for each type.
   b) Discuss in detail the physiological effects of heat.
c) Write a note on whirlpool bath with a suitable diagram

d) Define heat frequency. Write about the principles of heat production along with diagram

e) Describe the different methods of application of Paraffin wax bath

f) Describe Electromagnetic spectrum with neat diagram

SECTION - B (LAQ) (30 Marks)

3. Long answer question (any one out of two) [1 x 15 = 15]
   a) Define cryotherapy. Describe the indications and contraindications for the same. Discuss the different methods of applications of cryotherapy [1+5+9 = 15]
   b) Enumerate the ingredients used in paraffin wax bath mentioning its proportion and use. Describe physiological and therapeutic effects of paraffin wax bath. Give any four contraindications. [4+9+2 = 15]

4. Long answer question (any one out of two) [1 x 15 = 15]
   a) Enumerate types of LASER. Describe the production of ruby laser. Discuss properties of LASER in detail. [2+7+6 = 15]
   b) Define Ultrasound. Describe the principle & production of Ultrasound along with neat labelled diagram. Describe any two testing methods. [2+7+6 = 15]