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FIRST BPTH (2012) Examination, Summer (Phase - III All Other
Remaining UG/PG Courses) - 2020
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 answer book for all sections.

SECTION - "A" SAQ (50 Marks)

1. Short answer question (any five out of six) : [5 × 3 = 15]
- a) Define Ohm's law.
 - b) Write three properties of LASER.
 - c) Enumerate any three objective methods of measuring body temperature.
 - d) Enumerate three contraindications and precautions to be taken during application of Paraffin wax bath.
 - e) Write any three differences between Triode and Diode valve.
 - f) Give three uses of Rheostat in electrotherapy equipments.

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

[5 × 7 = 35]

- a) Draw a neat labelled panel diagram of I.F.T. & I.R.R.
- b) Describe the production of Short Wave Diathermy (SWD) with circuit diagram.
- c) Difference between Faradic type of current and Galvanic currents.
- d) Define Shock. Describe types of Shock. Write precautions to be taken against Earth Shock.
- e) State any three Home remedies of superficial heat and write its advantages and disadvantages. *hot bag, hot water*
- f) Describe production of therapeutic Ultrasound and draw panel diagram of Ultrasound machine. *>*

SECTION - "B" LAQ (30 Marks)

3. Long answer question (any one out of two) :

[1 × 15 = 15]

- a) Describe physiological effects of superficial heat. Name different modalities used in physiotherapy to give superficial heat. Explain the role of hypothalamus as thermal regulator.
- b) Write in detail methods of application of
 - i) Whirlpool,
 - ii) Paraffin wax bath.

4. Long answer questions (any one out of two) :

[1 × 15 = 15]

- a) Describe Magnetism and the molecular theory of Magnetism. Explain in detail Magnetic effects of electric current.
- b) Describe the Electromagnetic Spectrum. Explain in detail Laws governing radiation.





First B.P.T.H. (2012) Examination, Phase - II Summer - 2022
FUNDAMENTALS OF ELECTROTHERAPY

Total Duration : 3 Hours

Total Marks : 80

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 - 3) All questions are compulsory.
 - 4) The number to the right indicates full marks.
 - 5) Draw diagrams wherever necessary.
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 - 7) Use a common answerbook for all sections.

SECTION "A" SAQ (50 Marks)

1. Short answer question (any five out of six) : [5 × 3 = 15]
 - a) Discuss home remedies.
 - b) Electrodes used in multidiagnostic stimulator.
 - c) Define beat frequency with example.
 - d) Grothus law with example.
 - e) What is electromagnetic spectrum?
 - f) Define inverse square law with an example.

2. Short answer question (any five out of six) : [5 × 7 = 35]
 - a) Discuss construction of whirlpool bath.
 - b) Compare moist heat and dry heat with examples.
 - c) Discuss production of LASER and discuss its effects.
 - d) Discuss production of IR lamps.
 - e) Discuss physiological effects of US.
 - f) What is electromagnetic spectrum? Discuss its production. What is induced EMF?



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SECTION "B" LAQ (30 Marks)

3. Long answer question (any one out of two) : [1 × 15 = 15]
- a) Discuss physiological effects of cryotherapy. Give uses of cryotherapy. Discuss any one technique of application. [6+5+4 = 15]
- b) Write down different types of currents used in PT department with respect to wave forms. What is skin resistance? Describe methods to reduce it. [7+3+5 = 15]
4. Long answer question (any one out of two) : [1 × 15 = 15]
- a) Define shock. Give types of severity of shock. What measures be are to taken in PT department to prevent shock? [2+7+6=15]
- b) Draw circuit diagram of SWD, production of SWD. Give function of tuning knob. [5+7+3=15]

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First B.P.T.H. (2012) Examination, Summer - 2023 (Phase - III)  
FUNDAMENTALS OF ELECTRO THERAPY

Total Duration : 3 Hours

Total Marks : 80



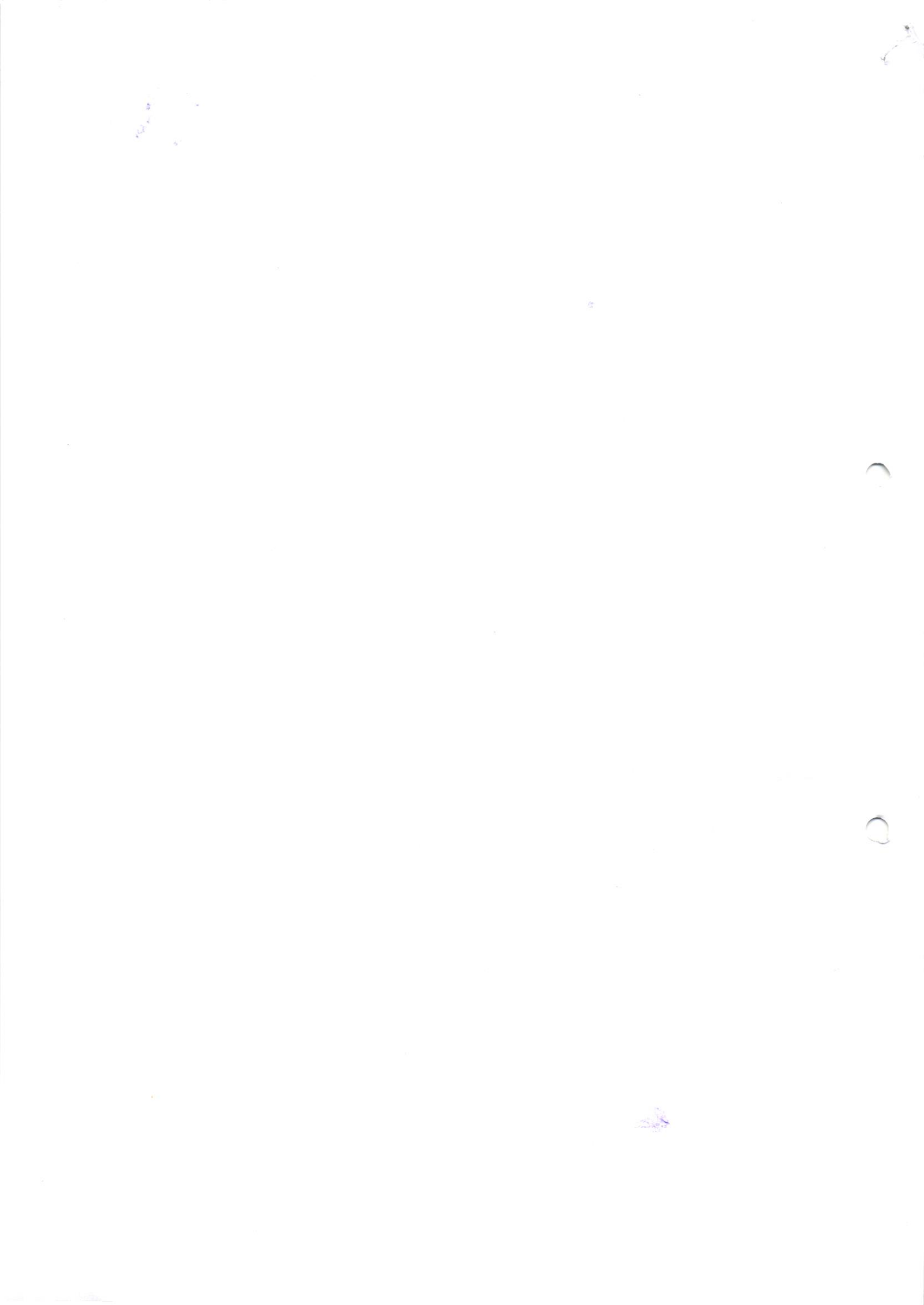
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  - 7) Use a common answerbook for all sections.

Section "A" SAQ (50 Marks)

Short answer question (any five out of six) :

[5 × 3 = 15]

1. Define Beat frequency with example.
2. Draw panel diagram of Ultra Sound.
3. What are thermionic valves?
4. Write down different types of semiconductors.
5. Oscillators.
6. What are EMF signals? Write down its hazards.



Short answer question (any five out of six) :

[5 × 7 = 35]

- a) Write down principle and production of IFT.
- b) Write down indications and contraindications of IR.
- c) Define shock. Write down the measures taken to avoid shock.
- d) Write down the production of non-luminous and luminous IR.
- e) What are hydrocollator packs? Draw panel diagram of HP unit.
- f) Write down merits and demerits of Home remedies.

Section "B" LAQ (30 Marks)

Long answer question (any one out of two) :

[1 × 15 = 15]

- a) Draw panel diagram of Paraffin wax bath unit. Write down content of paraffin wax. Write down indications for the same.
- b) Write down physiological effects of superficial heat in detail.

Long answer question (any one out of two) :

[1 × 15 = 15]

- a) Give the Production, Physical principles, Panel diagram and Testing of IFT.
- b) Write down principle, production and properties of LASER.

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