



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): [5 × 3 = 15]
- a) Define Interferential & Russian currents.
  - b) Describe the parameters of acupuncture TENS.
  - c) Define therapeutic ultrasound & phonophoresis.
  - d) Define inverse square law with examples.
  - e) What are micro currents?
  - f) Define anodal and cathodal Galvanism?

2. Short answer question (any five out of six):
- Describe the Faradic re-education technique with an example.
  - Discuss indications & contraindication of Interferential therapy.
  - Discuss types of TENS with parameters and waveforms.
  - Define biofeedback. Discuss types of biofeedback with examples.
  - What are different modes of High Voltage Pulsed Galvanic Current (HVPGS)?
  - Discuss principles of faradism under pressure. Discuss instructions given to patient during treatment session. Add a note on Faradism under pressure for Lower limb.

**SECTION - B (LAQ) (30 Marks)**

3. Long answer question (any one out of two): [1 × 15 = 15]
- Describe the physiological effects of ultrasound & Describe the healing of non-infected wound with ultrasound.
  - Describe classification of UVR based on wavelength & physiological effects of UVR.
4. Long answer question (any one out of two): [1 × 15 = 15]
- How the heat is produced in body tissues with short wave diathermy. Discuss spacing, electrode size and position of electrodes with SWD.
  - Discuss pain pathways. Describe the mechanisms of electro-analgesia with TENS.

Second B.P.TH. (2012) Examination, (Phase - III) Winter - 2021  
ELECTROTHERAPY

Total Duration : 3 Hours

Total Marks : 80

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**SECTION "A" SAQ (50 Marks)**

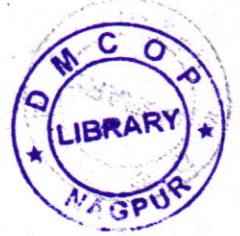
1. Short answer question (any five out of six): [5×3=15]
  - a) Define Near field and far field.
  - b) Explain the Clover Leaf Pattern in IFT
  - c) State any 3 Laws Governing Radiations
  - d) Define Latent Heat of Fusion
  - e) Explain the Principle of Contrast Bath
  - f) Define a Motor Point
  
2. Short answer question (any five out of six): [5×7=35]
  - a) Describe in detail the application of Laser in wound Healing
  - b) Define Iontophoresis. Describe its technique along with indications and contraindications
  - c) Define MED for UVR. Describe the technique for measuring it
  - d) Classify IR. Explain the physiological and therapeutic effects of IR
  - e) Describe various methods of application of SWD
  - f) Define IFT. Describe its physiological effects. Explain the advantages of IFT over TENS

SECTION "B" LAQ (30 Marks)

3. Long answer question (any one out of two): [1×15=15]
- a) What is Faradism under pressure? Describe its technique in detail. Enlist its contraindications and indications.
  - b) What is Therapeutic Ultrasound? Explain the principle on which it functions. Describe the physiological and therapeutic effects of the same.
4. Long answer question (any one out of two): [1×15=15]
- a) Describe the characteristics of Faradic current. Describe the physiological effects along with its indications and contraindications
  - b) Explain the purpose of Strength Duration curve. Describe the characteristics of a normal and abnormal SDC



Second B.P.Th. (2012) Examination, Winter - 2022  
ELECTROTHERAPY



Total Duration : Section A+B = 3 Hours

Total Marks : 80

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  - 7) Use a common answerbook for **all** sections.

**SECTION- "A" SAQ (50 Marks)**

1. Short answer questions (**any five** out of six): [5×3=15]
  - a) Three types Diadynamic currents.
  - b) Write 3 differences between faradic and galvanic current.
  - c) Define Motor point.
  - d) What is Phonophoresis.
  - e) Write uses of Russian currents
  - f) Three points on role of LASER in wound healing.
  
2. Short answer questions (**any five** out of six): [5×7=35]
  - a) What are strength duration curves. Describe interpretation of strength duration curve. [2+5]
  - b) Describe physiological and therapeutic effects of Infrared Radiation. [3+4]
  - c) Describe test dose calculation of Ultra Violet Radiation.

- d) Describe uses of Biofeedback.
- e) Describe principles of application and indication of faradism under pressure. [5+2]
- f) Define Intophoresis. Describe method of application of it with an example. [2+5]

**SECTION- "B" LAQ (30 Marks)**

3. Long answer questions: (any one out of two): [1×15=15]

- a) With respect to Short Wave Diathermy: describe methods of applications, describe physiological effects, enlist indications and contraindications. [6+5+4]
- b) With respect to Ultra Sound: describe methods of applications, describe therapeutic effects, enlist dangers and precautions. [6+5+4]

4. Long answer questions (any one Out of two): [1×5=15]

- a) With respect to Interferential Therapy: describe methods of applications, describe physiological effects, enlist indications and contraindications. [6+5+4]
- b) With respect to Transcutaneous Electrical Nerve Stimulation: describe its types, describe physiological effects, enlist indications and contraindications. [6+5+4]



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**Second B.P.TH (2012) Examination, Winter - 2023 (Phase - II)**  
**ELECTROTHERAPY**



Total Duration : 3 Hours

Total Marks : 80

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  - 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) Principle of biofeedback
  - b) Difference between continuous and pulsed ultrasound.
  - c) Three types of Diadynamic currents
  - d) Property of accommodation of tissues
  - e) Define Chronaxie and rheobase
  - f) Three types of lasers

**N - 5201**

**P.T.O.**

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

[5 × 7 = 35]

- a) Physiological and therapeutic effects of UVR
- b) Use of Laser in tissue healing and pain relief
- c) Types of IR and its physiological effects
- d) Write note on advantages of Phonophoresis, various medications used for the same and precautions.
- e) Applications of Faradic current and contraindications for Faradism under pressure
- f) Method for Test dose UVR

**Section "B" LAQ (30 Marks)**

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

[1 × 15 = 15]

- a) Discuss pain pathways and pain modulation using TENS. Mention different types of TENS. [7+8]
- b) Explain the physiological and therapeutic effects of SWD. Discuss the various methods of application and types of electrodes use. [8+4+3]

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

[1 × 15 = 15]

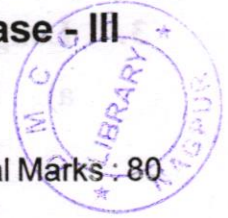
- a) Discuss therapeutic effects and uses of galvanic current. Mention any two positive and negative ions used therapeutically with its effect. [7+8]
- b) Define IFT. Explain its physiological and therapeutic effects. Mention its advantages over low frequency current. [3+8+4]



**Second B.P.TH. (2012) Examination, Winter - 2024 Phase - III**  
**ELECTROTHERAPY**

Total Duration : 3 Hours

Total Marks : 80



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  - 7) Use a common answerbook for all sections.

**SECTION - "A" SAQ (50 Marks)**

1. **Short Answer Questions (any five out of six) :** [5 × 3 = 15]
  - a) Any three electrode used in SWD.
  - b) Three advantages of IFT currents.
  - c) Write any three drugs used in Phonophoresis.
  - d) Enumerate three properties of Lasers.
  - e) Three Contraindications for Russian currents.
  - f) Enumerate Types of UVR.
  
2. **Short answer questions (any five out of six) :** [5 × 7 = 35]
  - a) Indications and physiological effects of IRR.
  - b) Dangers and Safety precautions for use of Therapeutic Lasers
  - c) Contraindications and Precautions while treating patients with Infrared Radiations.
  - d) Procedure for UVR test dose.
  - e) Physiological effects and Therapeutic uses of Laser therapy.
  - f) Physiological effects of UVR.

**SECTION - "B" LAQ (30 Marks)**

- 3. Long answer question (any one out of two) :** [1 × 15 = 15]
- a) Describe Shortwave diathermy under following headings.
- i) Physiological effects. [6]
  - ii) Therapeutic effects and uses. [6]
  - iii) Contraindications. [3]
- b) Describe Ultrasound under following headings.
- i) Types of application/modes. [7]
  - ii) Thermal effects. [5]
  - iii) Contraindications. [3]
- 4. Long answer question (any one out of two) :** [1 × 15 = 15]
- a) Describe IFT under following headings.
- i) Indications [7]
  - ii) Different methods of application/Electrode placements [5]
  - iii) Contraindications. [3]
- b) Define constant galvanic current. [2]  
 Describe Physiological and therapeutic effects. [8]  
 Describe iontophoresis with Ions used. [5]

