



51213

**Second B.P.Th. 2012 Examination, Winter 2017
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 answerbook for **all** Sections.

SECTION – A SAQ (50 Marks)

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

(5x3=15)

- a) Types of LASER. 2
- b) Diadynamic currents. 2
- c) Anodal galvanism. 2
- d) Russian current. 1
- e) Electromagnetic spectrum.
- f) Psoralen Ultraviolet A (PUVA). 4

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

(5x7=35)

- a) Explain pain gate mechanism. 5
- b) Physiological and therapeutic effects of infra-red radiation. 4
- c) Explain in detail about different types of TENS. 5
- d) Iontophoresis for hyperhidrosis. 2
- e) Therapeutic uses of LASER. 3
- f) Thermal and non-thermal effects of Ultra sound.

P.T.O.



SECTION – B LAQ (30 Marks)

3. Long answer question (**any one** out of two): (1×15=15)
- a) Write in detail about galvanic current. Describe the plotting and characteristics of a normal strength Duration Curve. (5+10)
 - b) Principle of IFT. (5)
Therapeutic application of IFT. (10)
4. Long answer question (**any one** out of two): (1×15=15)
- a) Classification of UVR. (2)
Physiological effects of UVR. (6)
Application of UVR for Psoriasis. (7)
 - b) Physical characteristics of SWD. (5)
Different methods of electrodes placement. (5)
Therapeutic effects of SWD. (5)
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Handwritten notes:
Pack
check part
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not
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scan

SECTION "A" SAQ (50 Marks)

1. Short answer question (**any five** out of six) : **(5×3=15)**
 - a) Draw a neat and labelled diagram of motor points of the face.
 - b) Name any three ions with their polarity and indication used in iontophoresis.
 - c) Describe various electrodes used in SWD.
 - d) Describe the mechanism of accommodation.
 - e) Properties of LASER.
 - f) Describe in brief High Voltage pulsed galvanic currents.

2. Short answer question (**any five** out of six) : **(5×7=35)**
 - a) Describe the various types of TENS.
 - b) Explain EMG biofeedback with examples.
 - c) Write on PUVA and Leeds regime.
 - d) Explain wound healing using LASER.
 - e) Describe different types of IR.
 - f) Explain in details the rationale and treatment technique of faradism under pressure.

P.T.O.



SECTION "B" LAQ (30 Marks)

3. Long answer question (**any one** out of two) : (1×15=15)
- Define ultrasound. Write in details its treatment methods. Add on its physiological effects.
 - Write in details the methods of application of SWD. Add on its contraindications and therapeutic effects.
4. Long answer question (**any one** out of two) : (1×15=15)
- Define a strength duration curve. *Describe characteris of normal SDC* Draw curves for innervated, partial and denervated curves with proper explanation of each.
 - Define IFT. Write its methods of application, indications and contraindications.
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**Second B.P.Th. (2012) Examination, Summer 2016
ELECTROTHERAPY**

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SECTION – A & SECTION – B

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

SECTION – A

(50 Marks)

(SAQ)

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

(5x3= 15)

- a) Enumerate any three ions used in iontophoresis along with its polarity.
- b) Write any six contraindications of SWD.
- c) Define Cavitation and Acoustic streaming.
- d) Uses of strong surged faradic current.
- e) Three contraindications of IR.
- f) Write characteristics of normal SD curve.

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

(5x7=35)

- a) Write principles, methods and uses of Biofeedback.
- b) Describe Physiological and therapeutic effects of radiant heat.
- c) Explain therapeutic effect of Ultrasound on inflammation and repair process.



- d) Explain different methods of application of SWD.
- e) State the properties of LASER. Explain the mechanism of wound healing by application of LASER.
- f) Define T.E.N.S. Discuss physiological and therapeutic effect of T.E.N.S.

SECTION – B**(30 Marks)****(LAQ)**

3. Long answer question (any one out of two) : (1×15= 15)
- a) Define pain and explain pain pathway. Describe pain gate theory and descending pain suppressing system. (7+8)
 - b) Describe the Physiological and therapeutic effects of Faradic current. Add a note on principle and technique of application of Faradic Re-education. (5+5+5)
4. Long answer question (any one out of two) : (1×15= 15)
- a) Define Interferential therapy and state its principle. Describe Physiological and Therapeutic effects of IFT. Describe technique and methods of application of IFT. (3+6+6)
 - b) Define and classify Actino therapy. Describe in detail the physiological effects of UVR and explain the procedure for test dose. (4+7+4)
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**Second B.P.Th. (2012) Examination, Winter 2016
ELECTROTHERAPY**

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Total Marks : 80

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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 property of accommodation. ✓
 - b) Write any three differences between galvanic and faradic current. ✓
 - c) Discuss any two laws of radiation with application to physiotherapy. ✓
 - d) Discuss types of electrodes used in Short wave diathermy. ✓
 - e) Explain E-2 dose of Ultra violet radiation. ✓
 - f) Mention any three ions with the solution used for pain relief. ✓

2. Short answer question (**any five** out of six) : **(5×7=35)**
 - a) Write a note on strength duration curve. ✓
 - b) Briefly discuss therapeutic effects of pulsed SWD. ✓
 - c) Discuss principles and uses of biofeedback. ✓
 - d) Discuss properties and uses of LASER. ✓
 - e) Discuss physiological and therapeutic effects of Ultra sound. ✓
 - f) Discuss application of UVR in wound healing. ✓

P.T.O.

SECTION 3 (LAQ) (30 Marks)

3. Long answer question (any one out of two) : (1x15=15)
- a) Discuss positioning of electrodes in short wave diathermy. Also, discuss its indications and contra indications. (7+4+4)
 - b) Discuss physiological and therapeutic effects of Interferential therapy. Also, discuss advantages of Interferential therapy over low frequency currents. (10+5)
4. Long answer question (any one out of two) : (1x15=15)
- a) Describe the different types of IR generators. Also discuss the indications and contra indications of IR radiations. (7+4+4)
 - b) Discuss physiological and therapeutic effects of faradic currents. Also, discuss faradism under pressure along with its application. (8+7)
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Second B.P.Th. (New) Examination, Summer 2012
ELECTRICAL AGENTS

Total Duration: Section A + B + C = 3 Hours

Section B & C Marks: 60

SECTION – B & SECTION – C

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- 1) All questions are compulsory.
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SECTION – B

2. Answer the following (any five out of six) : (5x3=15)
- a) Importance of spacing of electrodes in SWD.
 - b) Any three ions with uses in iontophoresis.
 - c) Types of TENS.
 - d) Enumerate three types of application of LASER.
 - e) Explain the two broad purpose of biofeedback.
 - f) Enumerate three methods of application of ultra sound.

3. Answer the following (any three out of four) : (3x5=15)
- a) Therapeutic uses of LASER.
 - b) Explain the gate control theory of pain.
 - c) Indications and contraindications of UVR.
 - d) Explain E2 dose and Leeds Regimen

SECTION – C

4. Describe the physiological and therapeutic effects of ultra sound. Explain in

detail the method of its use (5 marks)

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- 5. a) i) What is IFT? 7
- ii) Give advantages of IFT over low frequency currents. 5
- iii) Explain treatment technique in knee pain. 3

OR

- 5. b) i) Write in detail about the interrupted direct current. 5
- ii) Write the physiological effects of interrupted direct current. 5
- iii) Write the indications for the use of interrupted direct current. 5