



63905

First B.P.Th. (Revised) Examination, Winter 2013
FUNDAMENTALS OF ELECTRO THERAPY

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

Section B & C Marks: 60

SECTION – B & SECTION – C

Instructions: 1) All questions are compulsory.

2) The number to the right indicates full marks.

3) Draw diagrams wherever necessary.

4) 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.

SECTION – B

(30 Marks)

2. Answer the following (any five out of six) :

(5x3=15)

a) State the construction and use of a series rheostat.

b) State any three uses of a condenser.

c) Explain Joules law.

d) Define latent heat of fusion of ice. Give its value.

e) Triode.

f) Earth shock.

3. Answer the following (any three out of four) :

(3x5=15)

a) Contrast baths.

b) Describe with diagrams, various waveforms of interrupted direct current.

c) Production of non-luminous Infra red radiations.

d) Define LASER. Explain the properties of LASER.

P.T.O.

63905



SECTION - C

(30 Marks)

4.

(1x15=15)

- a) Define cryotherapy.
- b) Explain various techniques of application of cold therapy.
- c) Explain therapeutic uses of cold.

3

6

6

5. a)

(1x15=15)

- a) State the frequency of therapeutic Ultrasound waves.
- b) Explain production of Ultrasound waves with a neat labelled diagram.

3

(7+5=12)

OR

5. b)

(1x15=15)

- a) Explain production of IFT and define rhythmic beat frequency.
- b) Draw a neat labelled panel diagram of the IFT Unit.

(6+3=9)

6



63905

First B.P.Th. (Revised) Examination, Summer 2013
FUNDAMENTALS OF ELECTRO THERAPY

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

Section B & C Marks: 60

SECTION – B & SECTION – C

- Instructions:**
- 1) All questions are **compulsory**.
 - 2) The number to the **right** indicates **full marks**.
 - 3) **Draw diagrams wherever necessary**.
 - 4) 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.

SECTION – B

2. Answer the following (any five out of six) : (5×3=15)
- a) Types of electrodes
 - b) Latent heat
 - c) Skin resistance
 - d) Semiconductors
 - e) Beat frequency
 - f) Fuses.

3. Answer the following (any three out of four) : (3×5=15)
- a) Production of laser
 - b) Laws of radiation
 - c) Different types of transformer
 - d) Diode and triode valve.

SECTION – C

4. Discuss paraffin wax bath under the following headings :
- a) Description of paraffin wax bath container and composition of wax. 7
 - b) Methods of application of PWB. 5
 - c) Contra-indications of PWB. 3
5. Explain the production of ultra-sonic waves with a neat labelled diagram. What is the principle of production of ultrasound waves ? How will you test the machine ? (7+3+5)

OR

5. Draw a circuit diagram of SWD. Explain its production, importance of tuning and what are the ways to know that tuning is done ? (4+1+2+1)

First B.P.Th. (Revised) Examination, Winter 2012
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SECTION – B & SECTION – C

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SECTION – B

2. Answer the following (any five out of six) : (5×3=15)
- Capacitor
 - Inverse square law
 - Peloid
 - Contra-indication of cryotherapy
 - Coherence of LASER
 - Construction of N-P-N transistor.
3. Answer the following (any 3 out of 4) : (3×5=15)
- Whirl pool bath
 - Diagram of production of ultrasound
 - Types of transformer
 - Compare faradic type and interrupted galvanic current.

SECTION – C

4. Write in detail about paraffin wax bath.
What are the effects and uses of paraffin wax bath ?
What are the contra-indications of P.W.B ? (4+7+4)
5. a) What is ultraviolet radiation ?
Write about the production of U.V.R. with neat labelled diagram. (2+9+4)
Write a note on Therakin tunnel.
- OR
- b) Write a detail note on various types of low frequency current available in physiotherapy department which includes interrupted direct current (long and short), TENS and sinusoidal currents. 15

First B.P.Th. (New) Examination, Winter 2011
FUNDAMENTALS OF ELECTRO THERAPY

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

Section B & C Marks : 60

SECTION - B & SECTION - C

Instructions: 1) All questions are compulsory.

2) The number to the right indicates full marks.

3) Draw diagrams wherever necessary.

4) Do not write anything on the blank portion of the question paper.

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SECTION - B

2. Answer the following (any five out of six) (5×3=15)
- Lewis hunting reaction
 - State and explain Joules law and cosine law
 - Contrast bath
 - Beat frequency
 - Rheostat
 - Latent heat
3. Answer the following (any three out of four) (3×5=15)
- Construction of Kromayer lamp
 - Methods of ice application
 - Principles and production of IFT
 - Different types of testing of ultrasound.

SECTION - C

4. Describe in detail the production of Infra-Red. Also describe its indications and contraindications. (5+5+5=15)
5. a) Describe in detail the production of SWD. Add a note on various electrodes used for the same. (10+5=15)

OR

- b) Draw a neat labelled diagram of multistimulator. Describe in detail the production of galvanic and faradic currents and the difference between them. (5+5+5=15)

First B.P.Th. (New) Examination, May/June 2011
FUNDAMENTALS OF ELECTROTHERAPY

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

Section B & C Marks: 60

SECTION - B & SECTION - C

- Instructions:*
- 1) All questions are compulsory.
 - 2) The number to the right indicates full marks.
 - 3) Draw diagrams wherever necessary.
 - 4) Do not write anything on the blank portion of the question paper.
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SECTION - B

2. Answer the following (any five out of six) : (5×3=15)
 - a) Three instruments or ways of measuring body temperature objectively.
 - b) Step-up-transformer.
 - c) Coupling media.
 - d) Ohm's law
 - e) Three properties of LASER.
 - f) Define faradic current.

3. Answer the following (any three out of four) : (3×5=15)
 - a) Piezo-electric effect.
 - b) Any two laws of radiation.
 - c) Thermionic valve.
 - d) Types of semiconductor.

SECTION - C

4. Describe physiological effects of heat and enumerate different heating modalities. (7+8=15)

5. Describe different types of electrodes used in low frequency currents write different wave forms of interrupted galvanic currents. (7+8=15)

OR

Describe principles of I.F.T. Define and describe vector modulation and placement of electrodes. Add a note on effects. (3+9+3=15)



63903

First B.P.Th. (Revised) Examination, Summer 2014
BIOCHEMISTRY

Total Duration : Section A + B + C = 2 Hours

Section B & C Marks : 30

SECTION – B & SECTION – C

- Instructions :**
- 1) Use **blue/black** ball point pen only.
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 - 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 – B

(15 Marks)

2. Answer the following (any five out of six) :

(5x3=15)

- a) Functions of Cholesterol.
- b) Functions of Glycine.
- c) Genetic code.
- d) Functional classification of proteins.
- e) Clearance test.
- f) Deficiency manifestations of the vitamin niacin.

SECTION – C

(15 Marks)

3. Answer the following (any three out of four) :

(3x5=15)

- a) Describe TCA cycle with its energetics.
- b) Difference between kwashiorkor and marasmus.
- c) Diagnostic uses of enzymes.
- d) Describe sources, RDA, biochemical functions and deficiency manifestations of vitamin D.



63903

First BPTH (Revised), Winter 2015

Biochemistry - III

Total Duration : 2 Hours

Total Marks : 40

Instructions:

- 1) Use blue/black ball point pen only.
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- 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.

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

(5x3=15)

- a) What is BMR? Describe factors affecting BMR.
- b) Write biochemical importance of cholesterol and lecithin.
- c) Describe functions and nutritional deficiency disorders of iron.
- d) What is the competitive inhibition in an enzyme activity? Write the biochemical significance with suitable examples.
- e) Describe the sources, functions and deficiency disorders of Vitamin D.
- f) What are isoenzymes? State their role in clinical chemistry (Any one)

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

(5x5=25)

- a) Describe the glycogen storage disorders with the enzyme deficiencies and biochemical effects.
 - b) Describe metabolism of phenylalanine and tyrosine with special reference to two inborn errors.
 - c) Define ketogenesis and ketosis. Explain the processes, stating conditions leading to them.
 - d) Describe various types of RNAs and their functions.
 - e) Explain the biochemical characteristics and nutritional remedies of Kwashiorkor and Marasmus.
 - f) What is the Clearance test? Describe the test (of any one type) and its significance.
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First B.P.Th. (Revised), Examination, Summer 2015
BIOCHEMISTRY
(Syllabus of Revised is Applicable to Old/New)

Total Duration : 2 Hours

Total Marks : 40

- Instructions :**
- 1) Use **blue/black** ball point pen only.
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 - 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.**

1. Short answer questions (**any five** out of six) : **(5x3=15)**
 - a) Functions of RNAs.
 - b) What are lipoproteins ? Give functions of each.
 - c) Deficiency manifestations of vitamin C.
 - d) Therapeutic uses of enzymes.
 - e) Factors affecting Basal Metabolic Rate (BMR).
 - f) Give regulation of blood Calcium level.

2. Short answer questions (**any five** out of six) : **(5x5=25)**
 - a) Contractile elements of skeletal muscles.
 - b) Describe Glycogenesis with its regulation.
 - c) Explain Beta- Oxidation of palmitic acid with energetics.
 - d) Urea cycle and its significance.
 - e) Laboratory diagnosis of Jaundice.
 - f) Structure and functions of immunoglobulin.



First BPTH (Revised), Winter 2014

Biochemistry

(Syllabus of Revised is Applicable to Old/New)

Total Duration : 2 Hours

Total Marks : 40

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- 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 section.

1. Short answer questions (any five out of six) : (5x3=15)
 - a) kwashiorkor.
 - b) t-RNA.
 - c) Transamination.
 - d) Explain factors affecting enzyme activity.
 - e) TCA cycle.
 - f) Describe energetics for muscle contraction.

2. Short answer questions (any five out of six) : (5x5=25)
 - a) Explain hormonal regulation of blood glucose level.
 - b) Describe biochemical functions, deficiency manifestations of vitamin C.
 - c) Describe the cholesterol biosynthesis with its regulation.
 - d) Describe biochemical functions, deficiency manifestations of Iron.
 - e) Describe kidney function tests.
 - f) Mucopolysaccharides.



63903

First BPTH (Revised), Winter 2014
Biochemistry
(Syllabus of Revised is Applicable to Old/New)

Total Duration : 2 Hours

Total Marks : 40

Instructions:

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- 7) Use a common answer book for all section.

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

(5x3=15)

- a) kwashiorkor.
- b) t-RNA.
- c) Transamination.
- d) Explain factors affecting enzyme activity.
- e) TCA cycle.

f) Describe energetics for muscle contraction.

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

(5x5=25)

- a) Explain hormonal regulation of blood glucose level.
- b) Describe biochemical functions, deficiency manifestations of vitamin C.
- c) Describe the cholesterol biosynthesis with its regulation.
- d) Describe biochemical functions, deficiency manifestations of Iron.
- e) Describe kidney function tests.
- f) Mucopolysaccharides.



First BPTH (2012), Winter 2015

Fundamentals of Kinesiology and Kinesiotherapy - IV

Total Duration : Section A + B = 3 Hours

Total Marks : 80

Section - A & Section - B

Instructions:

- 1) Use **blue/black** ball point pen only.
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- 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) Note on stable equilibrium
 - b) Effect of warm up exercise
 - c) Write an note on Angle of pull
 - d) Jacobson method of relaxation
 - e) Note on Shoulder wheel
 - f) Dhanurasana.
2. Short answer question (any five out of six) : (5x7=35)
 - a) Write the note on standing and write its effect and uses.
 - b) Physical Properties of water used in Hydrotherapy.
 - c) Note on Type of muscle work and add an note on Passive insufficiency.
 - d) Name the derived position from Kneeling and write any three positions in detail.
 - e) Define Goniometry and write an note on measurement of Shoulder Flexion.
 - f) Write a note on Principles of passive mobility exercises.

Section "B" LAQ (30 Marks)

3. Long answer question (any one out of two) : (1x15=15)
 - a) Discuss levers in human body with respect to Mechanical Advantage.
 - b) Define Suspension add an note on its types and Explain Vertical Suspension for shoulder Abduction.
4. Long answer question (any one out of two) : (1x15=15)
 - a) Define Passive movement and write its principles, effect & uses in detail.
 - b) Define massage. Give its classification and write in details about pertissage maneuver.

First B.P.Th. (New) Examination, Summer 2012
FUNDAMENTALS OF EXERCISE THERAPY

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

Section B & C Marks: 60

SECTION – B & SECTION – C

Instructions: 1) *All questions are compulsory.*

2) *The number to the right indicates full marks.*

3) *Draw diagrams wherever necessary.*

4) *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.*

SECTION – B

2. Answer the following (any five out of six) :

(5×3=15)

- a) Uses of Parallel bars
- b) Indications of group exercises
- c) Cardinal planes
- d) Indications of passive movements
- e) Angle of pull
- f) Effects of paschimottasana.

3. Answer the following (any three out of four) :

(3×5=15)

- a) Universal goniometer
- b) Center of gravity
- c) Indications for warm up and cool down exercises
- d) Axial suspension.

P.T.O.



SECTION – C

4. **Classify levers and describe second order levers in detail with examples from human body. Discuss regarding levers in Physiotherapy giving examples.** (3+7+5=15)
5. a) Write indications of massage. Explain physiological effects of massage on musculoskeletal system. Describe effleurage technique. (4+5+6=15)
- OR
- b) Mention goals of hydrotherapy. Write contraindications and precautions to be taken for hydrotherapy. (5+5+5=15)
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First B.P.Th. (New) Examination, Winter 2011
FUNDAMENTALS OF EXERCISE THERAPY

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

Section B & C Marks : 60

SECTION – B & SECTION – C

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SECTION – B

2. Answer the following (any five out of six) : (5×3=15)
 - a) Enumerate the superficial and deep sensation.
 - b) Enumerate the principles of passive movements.
 - c) Eccentric muscle contraction.
 - d) Mechanical advantage.
 - e) Merits of group exercises.
 - f) Warm-up exercises.

3. Answer the following (any three out of four) : (3×5=15)
 - a) Muscle work in kneeling.
 - b) Types of equilibrium.
 - c) Enumerate the methods and discuss indication for local relaxation.
 - d) Vajrasana.

SECTION – C

4. Describe the various plane and axis with suitable example. Explain its uses in physiotherapy. (10+5=15)

 5. a) Classify massage manipulations. Describe percussion manipulations in detail with uses. (1×15=15)
- OR
- b) Define starting and derived positions with examples. Describe the various position from lying position. (5+5+5=15)

First B.P.Th. (2012) Examination, Summer 2015
FUNDAMENTALS OF KINESIOLOGY AND KINESIOTHERAPY – IV

Total Duration : Section A + B = 3 Hours

Total Marks : 80

SECTION – A & SECTION – B

- Instructions :**
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 - 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) Write the factors on which stability of body depends.
 - b) Define biomechanics and classify the same.
 - c) Dhanurasana.
 - d) Note on Movable pulley.
 - e) Write note on parallelogram of forces.
 - f) Write a note on Passive insufficiency of a muscle.
2. Short answer question (**any five** out of six) : (5×7=35)
 - a) Write a note on Types of muscle work.
 - b) Explain Sitting position and write its Muscle work.
 - c) Explain the Principle of passive movement in detail.
 - d) Define relaxation. Describe any one method in detail.
 - e) Write a note on Physics mechanics related to Hydrotherapy.
 - f) Any three Derived position in Standing with it uses and effect.

P.T.O.



SECTION – B
(LAQ)

(30 Marks)

3. Long answer question (**any one** out of two) : (1×15=15)
- a) Describe Anatomical lever and explain its types with example. (5+10)
 - b) Describe the various cardinal Axis and Planes . Write Newton's laws of motion. (8+7)
4. Long answer question (**any one** out of two) : (1×15=15)
- a) Write the principles of Goniometry and write the Types of Goniometers and explain measurement of hip abduction ROM. (5+5+5)
 - b) What is massage ? Indication and contraindications of massage. Explain the back massage in detail. (2+5+8)
-

Total Duration : Section A + B = 3 Hours

Marks : 80

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- 3) **All** questions are **compulsory**.
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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) :

(5x3=15)

- Paschimottanasana
- Mechanical advantage
- Angle of pull
- Define Newtons third law. Give one example.
- Shoulder wheel
- Prone kneeling

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

(5x7=35)

- Define group exercises. Write merits and demerits of group exercises.
- Define friction. Write the factors on which it depends. Describe its application in physiotherapy.
- Open vs Close kinematic exercises
- Classification of lever with examples.
- Enumerate uses of warm up exercises.
- Principles of Hydrotherapy.

(P.T.O.)

SECTION – B (LAQ)

(30 Marks)

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

(1x15=15)

- a) Define massage. Classify its technique. Describe any one technique in detail. Describe indication and contraindication of massage in general.
- b) Classify movements. Describe any one in detail under the following heading as principles and its uses.

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

(1x15=15)

- a) Define goniometry. Discuss principles of goniometry giving an example of wrist joint. Describe various types of goniometers.
 - b) Define Suspension. Classify types of suspension. Describe how suspension can be used to improve ROM of right knee joint and to strengthen left shoulder flexors and extensors.
-