First B.P.TH. (2012) Examination, Summer - 2023 (Phase - III)
FUNDAMENTALS OF KINESIOLOGY AND KINESIOTHERAPY

Total Duration : 3 Hours

Total Marks : 80

Instructions :
1) Use **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) Write benefits and uses of Gomukhasana.

b) Define Osteokinematics and Arthrokinematics.

c) Write any 3 uses of Therapeutic Ball.

d) Write importance of Cool Down Exercises.

e) Enlist various types of Goniometer.

a) Write different types of Levers. Describe them with respect to mechanical advantage. [3+4]

b) Describe ranges of muscle work with example.

c) Write types of Suspension. Write effects and uses of Suspension therapy. [4+3]

d) Describe Active insufficiency and Passive insufficiency with example.

e) Define Goniometry. Describe the technique of measuring Shoulder Abduction using goniometry. [2+5]

f) Describe Anatomical pulleys with examples.

Section "B" LAQ (30 Marks)

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

a) Define Axis and Planes.Describe them with suitable examples. Explain Plane of movement in relation to Gravity. [3+6+6=15]

b) Define Voluntary Movement and write its classification. Explain free Exercises with its effects and uses. [2+4+4+5=15]

4. Long answer question (**any one** out of two) : [1 × 15 = 15]

a) Describe fundamental kneeling position with its muscle work, effect and uses. [5+5+5=15]

b) Write classification of Massage based on techniques. Write 1 Physiological and 1 Therapeutic use of each technique. [3+6+6=15]

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. a) Define Beat frequency with example.

b) Draw panel diagram of Ultra Sound.

c) What are thermionic valves?

d) Write down different types of semiconductors.

e) Oscillators.

f) 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.

First B.P.TH. (2012) Examination, Summer - 2023 (Phase - III)
HUMAN ANATOMY

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 question (**any five** out of six) : [5 × 3 = 15]

a) Enumerate the branches of Axillary artery

b) Enlist differences between right and left lungs

c) Enumerate the extra ocular muscles of eyeball with their nerve supply

d) Enumerate the muscles forming the rotator cuff with their nerve supply

e) Enumerate the anterior and posterior relations of Right kidney

f) Enlist features of skeletal muscle

P.T.O.

2. Short answer question (**any five** out of six) : [5 × 7 = 35]

a) First carpometacarpal joint of the thumb

b) Boundaries and contents of popliteal fossa

c) Brachialis muscle

d) Right ventricle

e) Psoas Major

f) Differences of small and large intestines

Section "B" LAQ (30 Marks)

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

a) Describe the Wrist joint under the following headings

i) Type of joint and ligaments [5]

ii) Movements of joint and muscles acting [5]

iii) Relations [3]

iv) Applied anatomy [2]

b) Describe the Hip joint under the following headings

i) Type of joint and ligaments [5]

ii) Movements of joint and muscles acting [5]

iii) Relations [3]

iv) Applied anatomy [2]

4. Long answer question (**any one** out of two) : [1 × 15 = 15]

a) Describe the Hypoglossal nerve under the following headings

i) Nucleus [3]

ii) Intracranial course [3]

iii) Extracranial course [3]

iv) Branches [3]

v) Applied anatomy [3]

b) Describe the superolateral surface of cerebral hemisphere(cerebrum) under the following headings; [5]

i) Sulci and gyri [4]

ii) Functional areas [3]

iii) Blood supply [3]

iv) Applied anatomy

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First B.P.TH. (2012) Examination, Summer - 2023 (Phase - III)
BIOCHEMISTRY

Total Duration : 2 Hours | Total Marks : 40

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 answerbook for all sections.*

Short answer questions (**any five** out of six) : **[5 × 3 = 15]**

a) What are enzymes? Describe factors affecting activity of the enzymes (Any four).

b) Describe Cori's cycle and its significance.

c) Describe functions and deficiency disorders of calcium.

d) Give an account of biochemical functions of Vitamin E and Vitamin K.

e) Illustrate role of macronutrients in a balanced diet in brief.

f) Write a short note on gout.

Short answer questions (**any five** out of six): [5 × 5 = 25]

a) Describe Urea cycle with its regulation and clinical significance.

b) Explain the process of glycogenolysis along with its regulation and significance.

c) Give an account of the functional classification of proteins with suitable examples.

d) Explain the biochemical components involved in muscle contraction with their role.

e) escribe the tests to assess liver functions (Enzymes & Excretory types).

f) Describe the mechanism of steroid hormones in brief.

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First B.P.TH. (2012) Examination, Summer - 2023 (Phase - III)
HUMAN PHYSIOLOGY

Total Duration : 3 Hours

Total 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) : [5 x 3 = 15]

2. Short answer question (**any five** out of six) : [5 × 7 = 35]

a) Origin and spread of cardiac impulse.

b) Oxygen debt.

c) Hypoxia.

d) Resting membrane potential.

e) Stretch reflex.

f) Oxygen haemoglobin dissociation curve.

Section "B" LAQ (30 Marks)

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

a) Draw a well labelled diagram of sarcomere. Describe the molecular basis of muscle contraction. Enumerate the differences between slow and fast muscle.

b) Define Cardiac output and cardiac index.Describe the regulation of Cardiac output.

4. Long answer question (**any one** out of two) : [1 × 15 = 15]

a) Enumerate the ascending tracts of the Spinal cord. Describe in detail the Spinothalamic tracts. Add a note on Brown - Sequard Syndrome

b) Describe the neural regulation of Respiration. Add a note on Periodic breathing.

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