First B.P.TH. (2012) Examination, Winter - 2022
FUNDAMENTALS OF KINESIOLOGY AND KINESIOTHERAPY

Total Duration : 3 Hours | Total Marks : 80

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) Types of Muscle contraction.

b) Cool down exercise.

c) Define kinetics and Kinematics.

d) Centre of Gravity.

e) Define Newtons Second law of motion.

f) Buoyancy.

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

a) Explain cardinal planes and axes.

b) Jacobson's relaxation.

c) Shoulder wheel.

d) Dhanursana - Describe position and its physiological effect.

e) Principles of Hydrotherapy.

f) Open vs Closed Kinematic exercise.

SECTION "B" LAQ (30 Marks)

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

a) Define Massage. Classify technique. Describe any one technique in detail. Describe indication and contraindication of massage in general.

b) Explain Passive Movement. Principles of Passive movement. Uses of passive movement and contraindication for passive movement.

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

a) Define goniometry. Discuss the principles of goniometry giving example of Knee joint. Describe various types of goniometers.

b) Define starting position. Describe fundamental standing position with its muscle work, effect and uses.

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First B.P.T.H. (2012) Examination, Winter - 2022
FUNDAMENTALS OF ELECTRO THERAPY

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.
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) What is Earthing? Write its importance.

b) Functions of transformer.

c) Factors affecting skin resistance.

d) Write three merits and demerits each of hydrocollator packs.

e) Potentiometer.

f) Define latent heat of vaporization and write its value.

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

a) Explain production of Short Wave Diathermy with circuit diagram.

b) Enumerate various home remedies and explain in detail any two.

c) Describe different modes of heat transfer with an example of each.

d) Define shock. What are the types of shock and what precautions are to be taken to prevent shock?

e) Explain luminous & non-luminous IR generators.

f) What is contrast bath? Write advantages and disadvantages of it. Explain in detail physiological effects of contrast bath.

SECTION "B" LAQ (30 Marks)

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

a) Describe the physiological and therapeutic effects of Whirlpool Bath. Write the method of application of whirlpool bath for treating an open wound. What are the precautions that need to be taken during application? [5 + 7 + 3]

b) Describe hemodynamic, neuromuscular and metabolic effects of Cryotherapy. Explain therapeutic uses of Cryotherapy. Write contraindications to cold therapy. [6 + 6 + 3]

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

a) Write physical principles of Ultrasound. Explain production of Ultrasound with circuit diagram. Draw a neat labelled panel diagram Ultrasound machine. [3 + 8 + 4]

b) Write physical principles of I.F.T. Describe production of I.F.T. and draw a neat labelled panel diagram of I.F.T. [3 + 7 + 5]

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First B.P.TH. (2012) Examination, Winter - 2022
HUMAN ANATOMY

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) Enumerate the branches of external carotid artery.

b) Mention the structures forming the stomach bed.

c) Enumerate supports of the uterus.

d) Classification of synovial joints.

e) Histology of hyaline cartilage.

f) Features of medial wall of middle ear.

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

a) Boundaries and contents of superior mediastinum.

b) Locking and unlocking of the knee joint.

c) Popliteal fossa.

d) Bronchopulmonary segments of left lung.

e) Sternocleidomastoid muscle.

f) Course, relations and branches of axillary nerve.

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

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

a) Describe Gluteus maximus muscle under the following heads :
   i) Attachments
   ii) Actions
   iii) Nerve supply
   iv) Structures under cover of gluteus maximus.

b) Describe shoulder joint under the following heads :
   i) Type and articular surfaces
   ii) Fibrous capsule and ligaments
   iii) Movements and muscles producing movements
   iv) Applied anatomy.

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

a) Describe the glossopharyngeal nerve under the following heads:
   i) Functional components and nuclei
   ii) Course and relations
   iii) Branches and distribution
   iv) Clinical anatomy.

b) Describe cerebellum under the following heads :
   i) External features
   ii) Cerebellar nuclei
   iii) Cerebellar peduncles and connections
   iv) Functions
   v) Clinical anatomy

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First B.P.TH. (2012) Examination, Winter - 2022
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 × 3 = 15]
   a) Positive feed - back mechanism.
   b) Constituent of Pancreatic juice.
   c) Factors affecting Glomerular Filteration Rate.
   d) Functions of middle ear.
   e) Myxedema.
   f) Primary active transport.

2. Short answer question (any five out of six) : [5 × 7 = 35]
   a) Origin & Spread of cardiac impulse.
   b) Oxygen dissociation curve.
   c) Cardio - respiratory changes during moderate exercise.

d) ECG as seen in Lead II.

e) Anti Diuretic Hormone.

f) Describe left ventricular pressure and volume changes during cardiac cycle.

SECTION "B" LAQ (30 Marks)

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

a) Draw a neat, labeled diagram of Neuro Muscular junction. Describe the process of neuromuscular transmission. Add a note on myasthenia gravis.

b) Define blood pressure. Describe the determinants of blood pressure. Describe the long term regulation of blood pressure.

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

a) Enumerate the descending tracts. Describe the Pyramidal tract. What are the effects of its lesion at various levels?

b) What are the functions of spinal cord? Describe the stages of spinal shock. Add a note on Brown Sequard syndrome.

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Total Duration...

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3) All questions are **compulsory.**

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5) Draw diagrams **wherever** necessary.

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7) Use a common answerbook for all sections.

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

a) Explain the importance of cholesterol.

b) Write sources and functions of Calcium.

c) What is Kwashiorkor?

d) Explain Gout.

e) Name essential and non-essential amino acids.

f) Give the significance of BMR and Specific Dynamic action (SDA).

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

a) Explain the synthesis and degradation of ketone bodies.

b) Explain mechanism of action of steroid hormones.

c) Write features and significance of Hexose monophosphate shunt.

d) Explain the urea cycle with its clinical significance.

e) Write Metabolic changes occur during starvation.

f) Define lipoproteins and gives its various functions.