First B.P.T.H (2012) Examination, Summer - 2024 Phase - II
HUMAN ANATOMY

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) Enumerate sites of Porto-caval anastomosis.

b) Enumerate the branches of External Carotid artery.

c) Draw neat and labelled diagram of blood supply of long bone.

d) Enlist the structures forming Stomach bed.

e) Draw and label a diagram depicting microanatomy of Cardiac muscle.

f) Specify the nerve supply of extra ocular muscles.

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

a) Describe the boundaries and contents of popliteal fossa

b) Draw a neat and labelled diagram of Mid brain at the level of Superior Colliculus.

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c) Describe Respiratory movements. Specify the joints at which these movements take place and muscles responsible.

d) Deltoid muscle

e) Describe the blood supply and nerve supply of scalp

f) Describe the origin, course, termination and applied anatomy of the Left Coronary Artery

SECTION - "B" LAQ (30 Marks)

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

a) Describe Hip joint under following heads

i) Type and formation [2]

ii) Ligaments [3]

iii) Relations [2]

iv) Movements and muscles producing movement [5]

v) Applied anatomy [3]

b) Describe Brachial Plexus under following heads

i) Formation [3]

ii) Course [3]

iii) Branches [5]

iv) Applied anatomy [4]

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

a) Describe Internal capsule under following heads

i) Parts and relations [4]

ii) Tracts passing through [4]

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iii) Blood supply [4]

iv) Applied anatomy [3]

b) Describe the glossopharyngeal nerve under following heads

i) Nuclei of origin and functional components [5]

ii) Course and relations [3]

iii) Branches and distribution [5]

iv) Applied anatomy [2]

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FIRST B.P.TH. (2012) Examination, Summer - 2024 Phase - II
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 answer book for all sections.*

1. Short Answer Questions (any 5 Out of 6):- **[5 × 3 = 15]**

a) Draw a neat labeled diagram of the electron transport chain showing all enzyme complexes.

b) Distinguish between Kwashiorkor and Marasmus.

c) Write the clinical significance of bilirubin in differentiating types of jaundice.

d) Enumerate functions of glycine & Phenylalanine.

e) Give any six examples of enzymes used for therapeutic purposes.

f) Write functions of phosphorus.

2. Short Answer Questions (any 5 Out of 6):- **[5 × 5 = 25]**

a) What are lipoproteins? Enlist them. Write functions of each.

b) Write functions of sodium and potassium and explain in brief disorders associated with their metabolism.

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c) Write types of hormones. Explain the mechanism of action of cAMP.

d) Explain the TCA cycle and its energetics.

e) Write functions of vitamin E and K.

f) Explain competitive inhibition with suitable examples.

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FIRST B.P.TH. (2012) Examination, Summer - 2024 Phase - II
HUMAN PHYSIOLOGY

Total Duration : 3 Hours

Total Marks : 80

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.*

SECTION - A (50 Marks)

1. Short Answer Questions (Salve any 5 Out of 6):- [5 × 3 = 15]

a) Draw a neat and labeled diagram of normal ECG in lead II. State the normal duration of PR interval.

b) Enumerate phases of spike action potential and give their ionic basis

c) Give the Erlanger-Gasser classification of Nerve fibres.

d) Write a short note on surfactant

e) Enumerate the functions of Plasma Proteins

f) Enumerate the properties of skeletal muscle.

2.. Short Answer Questions (Solve any 5 Out of 6):- [5 × 7 = 35]

a) Define Hemostasis.Describe the Intrinsic mechanism of blood coagulation

b) What are the various types of refractive errors? Explain any two in detail.

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c) Describe the neuro-muscular junction. Add a note on Myasthenia gravis.

d) What is acclimatization? Describe the changes occurring in acclimatization.

e) Describe the metabolic functions of thyroid hormones.

f) Define Homeostasis.Explain in details the positive and negative feedback mechanisms along with one example each.

SECTION - B (30 Marks)

Long Answer Questions (Solve any 1 Out of 2) :- **[1 × 15 = 15]**

a) Describe in details the respiratory and cardiovascular changes during acute exercise. Add a note on oxygen debt.

b) Classify ascending tracts. Describe in details origin,course,termination of dorsal column- medial lemniscal tract. State the sensations carried by the tract.

Long Answer Questions (Solve any 1 Out of 2) :- **[1 × 15 = 15]**

a) Draw a neat & labeled diagram of Sarcomere. Describe he molecular basis of muscle contraction. Add a note on Rigor mortis.

b) Describe the stages of urine formation in detail. Add a note on micturition reflex

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First B.P.TH. (2012) Examination, Summer - 2024 Phase - II
FUNDAMENTALS OF KINESIOLOGY AND KINESIOTHERAPY

Total Duration : 3 Hours

Total Marks : 80

Instructions :

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4) *The number to the **right** indicates **full** marks.*
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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) Write technique and benefits of Bhujangasana.

b) Write importance of cool down exercises.

c) Define Active insufficiency and give example of it.

d) Write uses of Therapeutic balls.

e) Define Osteokinematics and Arthrokinematics.

f) Around which axis and in which plane the shoulder joint movement takes place.

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

a) Write role of Agonist, Antagonist, Fixators and Synergist and give one example.

b) Progressive Resisted exercises.

c) Describe types of Equilibrium and factors affecting it.

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d) Describe Anatomical Pulleys with examples.

e) Describe types of muscle contraction and give example.

f) Describe types of levers and give one example of each in human body.

SECTION - B LAQ (30 Marks)

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

a) Write classification of Massage on basis of techniques. Describe physiological effects and therapeutic uses of each technique.

[3 + 6 + 6]

b) Define relaxed passive movement. Explain its Principles and Effect and uses. **[3 + 6 + 6]**

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

a) Enlist various Starting positions. Write muscle work and effect and uses of any one starting position. **[3 + 6 + 6]**

b) Define Goniometry. Enlist types of Goniometer. Enlist uses of Goniometry. Describe principles of Goniometry. **[2 + 3 + 3 + 7]**

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First B.P.TH. (2012) Examination, Summer - 2024 Phase - II
FUNDAMENTALS OF ELECTRO THERAPY

Total Duration : 3 Hours

Total Marks : 80

Instructions : 1) *Use **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 - A SAQ (50 Marks)

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

a) Inverse square Law.
b) Step-up transformer.
c) Power plug.
d) Latent heat.
e) Buoyancy of water.
f) What is Piezoelectric effect?

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

a) What are Electro-magnetic radiations and their use in Physiotherapy.
b) What is Contrast bath? Give its uses, indications and contraindications.
c) Properties of LASER.
d) Give the indications and contraindications of Cryotherapy.
e) Types of transformers.
f) Describe Diodes and triodes.

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SECTION - B LAQ (30 Marks)

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

a) What is TENS? Describe the different types of TENS. Explain the different types of wave forms in therapeutic Low frequency currents. **[2 + 6 + 7]**

b) Describe the hydrocollator unit with diagram. Explain the method of application with precautions. Give the therapeutic uses of hot packs. **[5 + 5 + 5]**

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

a) Describe the production of Ultrasound with diagram. Explain the method of testing of Ultrasound. **[8 + 7]**

b) Describe the Physiological effects of Cryotherapy. Explain any one method of application. **[8 + 7]**



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