First B.P.TH. (2012) Examination, Phase - II Summer - 2022

HUMAN ANATOMY

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 answerbook for all sections.*

SECTION "A" SAQ (50 Marks)

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

a) Enumerate Extra ocular muscles

b) Define Transitional epithelium. Draw a diagram depicting it. Specify sites where it is found.

c) Enumerate the supports of uterus

d) Specify the bare areas of liver. Explain their importance.

e) List the posterior relations of kidney.

f) Classify Synovial Joints on the basis of number of axes of movements and give examples of each.

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

a) Describe Broncho-pulmonary segments. Add a note on its applied anatomy

b) Describe the Rotator cuff muscles

P.T.O

c) Describe boundaries and contents of Adductor canal

d) Describe the origin, insertion, nerve supply and actions of Soleus. Explain why it is called "Peripheral Heart"

e) Describe the boundaries and contents of Carotid Triangle

f) Describe the boundaries and contents of carpal tunnel. Explain carpal tunnel syndrome

SECTION "B" LAQ (30 Marks)

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

a) Describe knee joint under following heads
   - i) Type and formation [3]
   - ii) Ligaments [4]
   - iii) Movements and muscles producing movement [3]
   - iv) Locking and unlocking [3]
   - v) Applied anatomy [2]

b) Describe Radial Nerve under following heads
   - i) Formation and root value [3]
   - ii) Course and distribution [3]
   - iii) Branches [6]
   - iv) Applied anatomy [3]

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

a) Describe the superolateral surface of Cerebral Cortex under following heads
   - i) Sulci and gyri [4]
   - ii) Functional areas [4]
   - iii) Blood supply [4]
   - iv) Applied anatomy [3]

b) Describe Glossopharyngeal nerve under following heads
   - i) Nuclei and functional components [4]
   - ii) Course and distribution [3]
   - iii) Branches [6]
   - iv) Applied anatomy [2]

First B.P.TH. (2012) Examination, Phase - II Summer - 2022
HUMAN PHYSIOLOGY

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.*
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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) Active transport across the cell membrane.

b) State the functions of middle ear.

c) Erythroblastosis Foetalis.

d) Define GFR. Give its normal value. State the determinants of GFR.

e) Acromegaly.

f) Functions of saliva.

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

a) Define Shock. State the various compensatory mechanisms occurrin during non-progressive stage of shock.

b) Describe the properties of Synapse.

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

d) Describe Anti Diuretic Hormone.

e) Draw a neat and labelled diagram of Oxygen haemoglobin dissociation curve. Add a note on Bohr's effect.

f) State the differences between Fast and Slow muscle fibers.

SECTION "B" LAQ (30 Marks)

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

a) Describe three important ascending tracts in central nervous system.

b) Describe the carbondioxide transport in the body.

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

a) What are the energy sources used during muscle contraction? Describe the molecular mechanism of muscle contraction. Add a note on myasthenia gravis.

b) Describe in detail the various cardio-respiratory changes occurring during moderate intensity exercise.

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First B.P.TH. (2012) Examination, Phase - II Summer - 2022
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.*

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

a) Define Carbohydrates. State its functions.

b) What is marasmus?

c) Explain function and sources of Iron.

d) State the effects of aging on collagen.

e) Write a note on obesity.

f) State major dietary constituents and give its nutritional importance.

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

a) Describe sources, functions, deficiency manifestations and daily requirements of Vitamin A.

b) Describe the TCA cycle, its energetics and regulation (Diagrammatic presentation only).

c) Describe urea cycle and Give its clinical significance.

d) State the clinical conditions related to Calcium and phosphorus.

e) A 45-year-old woman complains of acute abdominal pain and vomiting following fatty food. The biochemical investigations are :

i) Raised serum conjugated bilirubin.

ii) Significantly raised serum alkaline phosphatase.

iii) Excretion of dark yellow coloured urine.

iv) Fouchet's test on fresh urine shows green colour.

Questions :

i) Name the disease.

ii) Give differential diagnosis of the condition.

f) Classify kidney function tests (KFT). Describe any two in detail.

First B.P.TH. (2012) Examination, Phase - II Summer - 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) Define torque and force

b) Finger ladder

c) Naukasana: Describe the position

d) Mention muscle components of group action

e) Law of ~~interia~~ inertia.

f) Angle of pull

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

a) Explain ranges of muscle work in detail.

b) Describe any five derived position from standing.

c) Define relaxation and add the note on its principles.

d) Describe fundamental kneeling position with its muscle work and uses.

e) Define equilibrium and write its type in detail.

f) Principle of relaxed passive movement.

SECTION "B" LAQ (30 Marks)

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

a) Explain Free Exercises. Describe its technique and effect and uses in detail.

b) Define lever. Explain anatomical lever. Classify levers with examples and their mechanical advantage.

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

a) Define and classify massage. Describe the techniques with their effect and uses in detail. **[2+3+10]**

b) Define goniometry. Explain types of goniometer and describe goniometry for shoulder flexion. **[3+4+8]**

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First B.P.TH. (2012) Examination, Phase - II Summer - 2022
FUNDAMENTALS OF ELECTRO THERAPHY

Total Duration : 3 Hours | Total Marks : 80

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) : [5 × 3 = 15]
   a) Discuss home remedies.
   b) Electrodes used in multidiagnostic stimulator.
   c) Define beat frequency with example.
   d) Grothus law with example.
   e) What is electromagnetic spectrum?
   f) Define inverse square law with an example.

2. Short answer question (**any five** out of six) : [5 × 7 = 35]
   a) Discuss construction of whirlpool bath.
   b) Compare moist heat and dry heat with examples.
   c) Discuss production of LASER and discuss its effects.
   d) Discuss production of IR lamps.
   e) Discuss physiological effects of US.
   f) What is electromagnetic spectrum? Discuss its production. What is induced EMF?

SECTION "B" LAQ (30 Marks)

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

   a) Discuss physiological effects of cryotherapy. Give uses of cryotherapy. Discuss any one technique of application. [6+5+4 = 15]

   b) Write down different types of currents used in PT department with respest to wave forms. What is skin resistance? Describe methods to reduce it. [7+3+5 = 15]

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

   a) Define shock. Give types of severity of shock. What measures be are to taken in PT department to prevent shock? [2+7+6=15]

   b) Draw circuit diagram of SWD, production of SWD. Give function of tuning knob. [5+7+3=15)