



Summer - 2016

63111

**First B.P.Th. (2012) Examination, Summer 2016  
HUMAN ANATOMY**

Total Duration : Section A + B = 3 Hours

Total Marks : 80

**SECTION – A & SECTION – B**

- 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) Enumerate the functions of skin.
  - b) Enumerate the supports of the uterus.
  - c) Enumerate the branches of external carotid artery.
  - d) Give differences between small intestine and large intestine.
  - e) Enumerate the extraocular muscles and mention their nerve supply.
  - f) Histology of the cardiac muscle.
  
2. Short answer question (**any five** out of six) : (5×7=35)
  - a) Boundaries and contents of axilla.
  - b) Sternocleidomastoid muscle
  - c) Bronchopulmonary segments of right lung.
  - d) Femoral nerve.
  - e) Boundaries and contents of superior mediastinum.
  - f) Lateral longitudinal arch of foot.

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SECTION – B LAQ (30 Marks)

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

(1×15=15)

a) Describe the hip joint under the following headings :

- i) Type and articular surfaces
- ii) Ligaments
- iii) Relations
- iv) Movements and muscles producing movements
- v) Applied anatomy.

b) Describe the wrist joint under the following headings :

- i) Type and articular surfaces
- ii) Ligaments
- iii) Relations
- iv) Movements and muscles producing movements
- v) Applied anatomy.

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

(1×15=15)

a) Describe the internal capsule of cerebrum under the following headings :

- i) Parts and relations
- ii) Fibers present in different parts
- iii) Blood supply
- iv) Applied anatomy.

b) Describe the facial nerve under the following headings :

- i) Nuclei
- ii) Course and relations
- iii) Branches and distribution
- iv) Applied anatomy.



63113

First B.P.Th. (2012) Examination, Summer 2016  
BIOCHEMISTRY

Total Duration : 2 Hours

Total Marks : 40

- 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.

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

(5×3=15)

- a) Classify polysaccharides giving suitable examples.
- b) Classify lipoproteins, stating their significance.
- c) Define essential amino acids and state their significance.
- d) Explain structure of DNA. Biochemical func<sup>ns</sup> of  $Ca^{2+}$ .
- e) Describe functions, deficiency disorders of iodine.
- f) State the role of isoenzymes in clinical diagnosis.

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

(5×5=25)

- a) Describe the biochemical functions, RDA, deficiency manifestations of Vitamin A.
- b) Enumerate glycogen storage diseases and their significance.
- c) Write short answer on ketosis, ketogenesis and ketonuria.
- d) Explain competitive inhibition of enzyme with examples.
- e) What are liver function tests ? Explain excretory type of functions.
- f) Explain location, sources of substrates and regulation of Urea cycle.



63115

**First B.P.Th. (2012) Examination, Summer 2016  
FUNDAMENTALS OF ELECTRO THERAPY**

Total Duration : Section A + B = 3 Hours

Total Marks : 80

**SECTION – A & SECTION – B**

- 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) Cosine Law.
  - b) Contrast Bath.
  - c) Capacitance.
  - d) Joule's Law.
  - e) Amplitude modulation in interferential therapy.
  - f) Precautions for application of thermotherapy.
  
2. Short answer question (**any five** out of six) : (5×7=35)
  - a) Classification of currents.
  - b) Define TENS. Write down its types.
  - c) Sources of infrared radiations.
  - d) Modes of heat transfer.
  - e) Whirlpool bath.
  - f) What are the types of LASER ? Write its properties.

P.T.O.



## SECTION - B LAQ (30 Marks)

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

- a) What is cryotherapy ? Write down various methods and the techniques of its application.
- b) Explain the production of UVR with a labelled diagram. Add a note on tridymite formation.

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

- a) Draw a panel diagram of therapeutic ultra sound and explain its production. Add a note on coupling media.
- b) Draw a circuit diagram of Short Wave Diathermy. *and explain its produc.* Write down the physiological effects and dangers of Short Wave Diathermy.



63114

**First B.P.Th. (2012) Examination, Summer 2016**  
**FUNDAMENTALS OF KINESIOLOGY AND KINESIOTHERAPY**

Total Duration : Section A + B = 3 Hours

Total Marks : 80

**SECTION – A & SECTION – B**

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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) Enumerate axis and planes with examples.
  - b) What are the parts of parallel bars ?
  - c) State Newton's second law with example.
  - d) Define line of gravity.
  - e) Write advantages of relaxation.
  - f) Write advantages of free exercises.
  
2. Short answer question (**any five** out of six) : **(5×7=35)**
  - a) Explain the different types of equilibrium with one example each.
  - b) Give the effects and uses of hydrotherapy.
  - c) Give the effects and uses of resisted exercises.
  - d) Describe the effects and uses of warm up and cool down phases.
  - e) Give the principles of Yoga. Describe and give the uses of Paschimottasan.
  - f) Describe sitting as a fundamental starting position.

P.T.O.



## SECTION – B LAQ (30 Marks)

3. Long answer question (**any one** out of two) : (1×15=15)
- Describe and classify methods of suspension therapy. Write down the advantages and apparatus used in suspension therapy.
  - Define and classify massage. Discuss in detail about the types, effects and uses of kneading manoeuvre.
4. Long answer question (**any one** out of two) : (1×15=15)
- Describe the principles and uses of goniometry. Write about the different types of goniometers.
  - Define a lever. Which are the different types of levers ? Write in detail about all types of levers in the human body with one example each.



63112

First B.P.Th. (2012) Examination, Summer 2016  
HUMAN PHYSIOLOGY

Total Duration : Section A + B = 3 Hours

Total Marks : 80

SECTION – A & SECTION – B

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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 answer book for **all** Sections.

SECTION – A SAQ (50 Marks)

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

(5×3=15)

- a) Platelets.
- b) Functions of bile.
- c) Parathormone.
- d) Factors affecting GFR.
- e) Facilitated diffusion.
- f) Dark adaptation.

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

(5×7=35)

- a) Draw and write details of ECG in lead 2.
- b) Carbon dioxide transport in the body.
- c) Cardiorespiratory changes during moderate exercise.
- d) Physiological changes at high altitude.
- e) Enumerate functions of cerebellum.
- f) Strength duration curve.

P.T.O.



## SECTION – B LAQ (30 Marks)

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

- a) Define motor unit. Describe in detail the factors controlling the tension development in the skeletal muscle.
- b) Draw neat label diagram of sarcoplasmic reticulum in skeletal muscle. What are the differences in sarcoplasmic reticulum of skeletal and cardiac muscle ? Write the process of excitation contraction coupling in a skeletal muscle.

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

- a) Define and classify synapse. Draw well labelled diagram of the synapse. Enumerate and Explain various properties of synapse.
- b) Define cardiac cycle. Explain various events in cardiac cycle. Draw well labelled diagram of pressure volume changes in the left ventricle.