63112

First B.P.T.H. (2012) Examination, Summer 2017
HUMAN PHYSIOLOGY

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 answerbook for **all** Sections.*

Section – A **(SAQ) (50 Marks)**

1. Short answer question (**any five** out of six) : **(5×3=15)**
   a) Features of sodium potassium pump.
   b) State the functions of middle ear.
   c) Juxta glomerular apparatus.
   d) Pancreatic juice.
   e) Functions of plasma proteins.
   f) Functions of Oxytocin.

2. Short answer question (**any five** out of six) : **(5×7=35)**
   a) Physiological actions of Thyroid hormone
   b) State the differences between Fast and Slow muscle fibers.
   c) Draw a neat and labeled diagram of Oxygen-hemoglobin dissociation curve. Discuss the factors causing its shift to right.
   d) Functions of cerebellum.
   e) Draw a neat labeled diagram of ECG in lead II. Describe the various waves, intervals and segments. Clinical uses of ECG
   f) What are the effects of exercise training on cardio-respiratory system ?

P.T.O.

Section – B **(LAQ) (30 Marks)**

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

   a) i) What is Cardiac cycle ? **1**

   ii) Describe the atrial and ventricular events of Cardiac Cycle. **9**

   iii) Discuss the various pressure volume changes with the help of diagram. **5**

   b) Enlist the descending tracts. Describe the origin, course, and termination of Pyramidal tract. Differentiate between upper motor neuron and lower motor neuron lesions.

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

   a) i) What are the energy sources used during muscle contraction ? **4**

   ii) Describe the molecular mechanism of muscle contraction. **9**

   iii) Add a note on myasthenia gravis. **2**

   b) i) Classification of receptors. **3**

   ii) Discuss the various properties of the receptors. **9**

   iii) Add a note on Phantom limb pain. **3**