PRELIMINARY EXAMINATION Ist YEAR BPTh 2018-19
HUMAN PHYSIOLOGY

Total Duration: Section A+B = 3 hours

Date: 18/04/2019 **Total Marks: 80**

Instruction:

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 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 Section.**

SECTION — A SAQ (50 Marks)

A. Short answer questions (Any five out of six) : **(5x3=15)**

1. Reflex arc.
2. Structure and junctions of cell membrane.
3. Parkinsonism.
4. Functions of testosterone.
5. Effects of hypersecretion of growth hormone.
6. Micturation reflex.

B. Short answer question. (Any five out of six) **(5X7=35)**

1. Oxygen deficit and oxygen debt.
2. Functions of the hypothalamus.
3. Uterine changes during the menstrual cycle and the hormonal control of these changes.
4. Refractive errors of the eye and their correction.
5. The origin and spread of the cardiac impulse.
6. Action potential and its properties.

SECTION — B LAQ (30 Marks)

C. Long answer question. (Any one out of two) **(1x15=15)**

1. What is excitation-contraction coupling. Describe the sarco-tubular system in skeletal muscle and explain skeletal muscle contraction. **(4+4+7)**

2. Describe the origin, course and functions of the pyramidal tracts (corticospinal tracts). What are the differences between upper and lower motor neuron lesions. Add a note on hemiplegia.

D. Long answer question. (Any one out of two) **(1x15=15)**

1. Draw a diagram showing clearly the neural regulation of respiration and describe the chemical regulation of respiration. **(7+8=15)**

2. Define blood pressure. What are the physiological variations in blood pressure. Enumerate the different mechanisms of blood pressure regulation and describe the renal mechanism of blood pressure regulation. **(4+3+8=15)**