

# **2012 Scheme**

**Q.P.Code: 112014**

**Reg. No.:.....**

## **First Year BPT Degree Supplementary Examinations July 2021**

### **Physiology**

**Time : 3 hrs**

**Max marks : 100**

- *Answer all questions to the point neatly and legibly* • *Do not leave any blank pages between answers* • *Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together* • *Leave sufficient space between answers*
- *Draw table/diagrams/flow charts wherever necessary*

#### **Essays:**

**(2x14=28)**

1. Describe the structure of neuromuscular junction. Discuss excitation contraction coupling in skeletal muscle.
2. Describe origin, course and termination of corticospinal tract (pyramidal tract). Give differences between upper motor neuron lesion and lower motor neuron lesion.

#### **Short notes:**

**(4x8=32)**

3. Explain lung volumes and capacities.
4. Define cardiac output. Give normal value. Discuss regulation of cardiac output.
5. Describe ECG leads and waves.
6. Describe the structure of muscle spindle with a diagram. Add a note on stretch reflex.

#### **Answer briefly:**

**(10x4=40)**

7. Conducting system of human heart.
8. Define hypoxia. Classify it with examples.
9. Differences between 1<sup>st</sup> and 2<sup>nd</sup> heart sound.
10. Functions of middle ear.
11. Define glomerular filtration rate. Give normal value. Add a note on factors affecting glomerular filtration rate.
12. Draw and explain Oxy haemoglobin dissociation curve. List the factors that cause shift to right.
13. Name the phases of deglutition. Describe the pharyngeal phase of deglutition.
14. Draw a labeled diagram of sarcomere. Discuss isometric and isotonic contraction.
15. Explain action potential in nerve fibre.
16. Juxta glomerular apparatus and its functions.

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