

**First Year BPT Degree Supplementary Examinations March 2018****PHYSIOLOGY**  
**(2012 - Scheme)****Time : 3 hrs****Max marks : 100**

- Answer all questions
- Draw diagrams wherever necessary

**Essays:****(2x14=28)**

1. What is normal PaO<sub>2</sub> and PaCO<sub>2</sub>. Describe the chemical regulation of respiration. Explain oxygen debt.
2. Draw a diagram of the neuromuscular junction. Explain the process of transmission at the neuromuscular junction.

**Short notes:****(4x8=32)**

3. Discuss Parkinsonism as a movement disorder
4. Define cardiac cycle. Explain the mechanical changes that occur during a normal cardiac cycle
5. Explain briefly the hormonal regulation of blood calcium level
6. Describe the physiological changes that occur during the micturition reflex.

**Answer briefly:****(10x4=40)**

7. Classification of transport of substances across cell membrane
8. Complications of mismatched blood transfusion
9. Factors influencing the venous return to the heart
10. Functions of T lymphocytes
11. Classify the sensory receptors and explain the receptor potential generated in them
12. Clinical features of diabetes mellitus
13. Composition of the pancreatic juice
14. Pregnancy diagnostic test
15. Functions of vestibular organs
16. Functions of skin

\*\*\*\*\*