

First Year B.Pharm Degree Examinations - August 2014

**(2012 - Scheme)**

**HUMAN ANATOMY AND PHYSIOLOGY**

**Time: 3 Hours**

**Total Marks: 100**

- Answer all Questions.
- Draw diagrams wherever necessary.

**Essay**

**(3x10=30)**

1. Describe the events of excitation and contraction coupling in the skeletal muscle
2. Explain the neural and hormonal mechanisms for regulation of blood pressure
3. Discuss the phases of action potential generation in the nervous tissue.

**Short notes**

**(14x5=70)**

4. Classify joints. Add a note on types of joint movements
5. Discuss the various blood groups in humans. Mention its significance in blood transfusion.
6. Draw a neat diagram of mitochondria. Summarize its function in the cellular respiration.
7. What is hemopoiesis. Narrate various steps involved in hemopoiesis.
8. Various types of blood cells with special emphasis on its structure and functions.
9. Mention various enzymes involved in digestion of carbohydrates. Explain its site of secretion, regulation and function.
10. Describe the various lung volumes and capacities.
11. Explain the process of tubular re-absorption.
12. Menstruation
13. Explain the synthesis, secretion, regulation and functions of insulin.
14. Describe the structure of spinal cord with the help of a diagram
15. List the importance of parasympathetic nervous system
16. Explain the physiology of hearing.
17. Discuss the functions of pancreatic hormones.