

**First Semester B.Pharm Degree Supplementary Examinations  
August 2019**

**Human Anatomy and Physiology**

**(2017 Scheme)**

**Time: 3 Hours**

**Max. Marks: 75**

- **Answer all questions**
- **Draw diagrams wherever necessary**

**Essay**

**(2x10=20)**

1. Draw and explain the structure of heart with various phases of cardiac cycle
2. List out the cranial nerves and explain its central and peripheral connections with its function

**Short Notes**

**(7x5=35)**

3. Describe the process of transport mechanism across the cell membrane.
4. Transitional epithelium
5. Explain the various types of synovial joints.
6. Discuss the bone cells with its functions.
7. Explain the process of development of red blood cells.
8. Lymphatic tissue and its function.
9. Explain the taste buds of the tongue.

**Answer Briefly**

**(10x2=20)**

10. Heart sounds.
11. Congestive cardiac failure.
12. Draw a labeled diagram of skin.
13. Functions of retina.
14. Composition of intracellular body fluids.
15. Aplastic anemia.
16. Cytoplasm.
17. Structure of cardiac muscle tissue.
18. Neuromuscular Junction.
19. Joints of upper extremity in human body

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