

KNT/KW/16/6542

**B. Pharm. First Semester (C.B.S.) Examination**  
**HUMAN ANATOMY AND PHYSIOLOGY—I**  
**Paper—3 (1 T 3)**

Time : Three Hours]

[Full Marks : 80

- N.B. :—** (1) Question No. 1 is compulsory.  
(2) Solve any **FOUR** questions from remaining.  
(3) Draw neat labeled diagram wherever necessary.

1. Solve any **FIVE** :—
- (a) Describe structure and functions of plasma membrane.
  - (b) Explain structure and types of muscular tissue.
  - (c) Give composition and function of lymph.
  - (d) Discuss role of plasma proteins.
  - (e) Explain the terms tidal volume, vital capacity and describe the role of diaphragm.
  - (f) Discuss various events in ECG.
  - (g) Describe various body cavities. 4×5=20
2. Classify epithelial tissue. Explain the characteristics, location and function with suitable diagrams. 15
3. (a) Give composition and functions of blood. 5  
(b) Explain the process of RBC formation and destruction in detail and define different types of anaemias. 10
4. (a) Define Blood Pressure. Discuss the factors affecting blood pressure and various mechanisms regulating it. 12  
(b) Draw a well labelled diagram showing internal anatomy of heart. 3
5. (a) Describe the phenomenon of exchange of respiratory gases and discuss factors affecting it. 10  
(b) Name the respiratory organs and explain Act of Respiration. 5
6. (a) Describe the cell cycle with the help of suitable diagram. 8  
(b) Explain the mechanism of generation of membrane potential. Comment on importance of membrane potential in cell physiology. 7
7. (a) Explain structure and function of spleen. 5  
(b) Name the clotting factors and explain the mechanism of Blood Coagulation. 10

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