

Total No. of Questions : 6]

SEAT No. :

**P3141**

[Total No. of Pages : 2

**[5245]-105**

**First Year B. Pharmacy (Semester - I)**

**1.1.5 HUMAN ANATOMY AND PHYSIOLOGY - I**

**(2013 Pattern)**

*Time : 3 Hours]*

*[Max. Marks : 70*

*Instructions to the candidates:*

- 1) *All questions are compulsory.*
- 2) *Answers to the two sections should be written in separate books.*
- 3) *Neat labeled diagrams must be drawn wherever necessary.*
- 4) *Figures to the right indicate full marks.*

**SECTION - I**

**Q1)** Classify leukocytes. Explain in detail formation & structure of each type. Add note on functions of leukocytes. **[10]**

OR

Explain 'fluid Mosaic Model' of plasma membrane with the help of neat labeled diagram. Discuss the structure and function of membrane proteins.

**Q2)** Answer the following (Any 5) **[15]**

- a) Explain the transport across plasma membrane by endocytosis.
- b) Describe the structure and functions of endoplasmic reticulum.
- c) Add an account on RBCs.
- d) Define blood clotting. Enlist clotting factors.
- e) Define the terms: Homeostasis, Hematopoiesis & Hemostasis.
- f) Explain structure of smooth muscle.
- g) Discuss the negative feedback system with example.

**Q3)** Write short note on (Any 2) **[10]**

- a) Physiology of muscle contraction.
- b) ABO & Rh blood Groups.
- c) Cell division.
- d) Epithelial tissues.

***P.T.O.***

## SECTION - II

**Q4)** With well labeled diagram explain the different parts of Electrocardiogram. Discuss in detail the diagnostic importance of ECG. **[10]**

OR

With neat labeled diagram describe gross anatomy of heart. Discuss hormonal regulation of blood pressure.

**Q5)** Answer the following (Any 5) **[15]**

- a) Discuss the anatomy and functions of liver.
- b) Define the terms: Arteriosclerosis, Congestive Heart Failure & Hypertension.
- c) Give composition, formation & circulation of lymph.
- d) Add a note on salivary glands.
- e) Write the locations and functions of Heart valves.
- f) Explain the structure & functions of lymph nodes.
- g) Explain the terms: Cardiac output & Stroke volume.

**Q6)** Write short note on (Any 2) **[10]**

- a) Stomach: Anatomy, Histology & functions.
- b) Cardiac cycle.
- c) Conduction system of heart.
- d) Spleen.

