

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.

