UKA TARSADIA UNIVERSITY

B.Pharm. (1st Semester)

Time : **2.30 p**m to **5.30** pm **Subject :**030020104-Principle of Human Anatomy Physiology - I Date : **28/05/**20**14**

Duration : 3 Hours **Max. Marks: 70**

Instructions:

1. Attempt all questions.
2. Write each section in a separate answer book.
3. Make suitable assumptions wherever necessary.
4. Figures to the right indicate full marks allocated to that question.
5. Draw diagrams/figures whenever necessary.

SECTION - 1

Q-1 (A) Do as directed. **[07]**

I) Give the normal range of human hemoglobin.

II) Define: Anatomy.

III) What is synapse?

IV) Enlist blood plasma proteins.

V) Give two examples of positive feedback mechanism.

VI) Define: Arthritis.

VII) Enlist different types of muscle tissue.

Q-1 (B) Answer the following in brief. (Any 4) **[08]**

I) Write a note on platelets.

II) Differentiate between Active and Passive transport processes.

III) Write the physiology of Golgi apparatus and Mitochondria.

IV) Draw a labeled diagram of vertebral column.

V) Write a note on Hemophilia.

VI) Enumerate the functions of skeleton.

Q-2 Answer the following. **[10]**

A) What is cell? Draw a labeled diagram of cell and describe their parts in detail.

OR

A) Distinguish between Mitosis and Meiosis with suitable diagram.

B) Describe Erythropoiesis. Write a note on life cycle of RBC.

OR

B) Define Hemostasis. Discuss various mechanism involved in it.

Q-3 Answer the following in detail. (Any 2) **[10]**

A) Classify joints with suitable examples and labeled diagrams.

B) Write a note on ABO blood grouping system.

C) Discuss physiology of muscle contraction.

SECTION - 2

Q-4 (A) Do as directed. **[07]**

I) What do you mean by Adaptive immunity?

II) Describe the location of Heart.

III) Define: Arrhythmia.

IV) Give the names of sphincters present in stomach.

V) "Heart is known as an auto-rhythmic organ of the body" – Justify.

VI) Enlist the parts of small intestine.

VII) What is B-cell?

Q-4 (B) Answer the following in brief. (Any 4) **[08]**

I) Write in brief about Spleen.

II) Enumerate the functions of Liver.

III) Differentiate between Artery and Vein.

IV) What is the composition of Pancreatic juice?

V) Give the functions of: a) Interferon b) NK cell

VI) Write the name of valves present in heart.

Q-5 Answer the following. **[10]**

A) Define cardiac output. Describe factors that affect regulation of stroke volume.

OR

A) Classify immunity. Discuss in detail about cell mediated immunity.

B) Define ECG. Write a note on cardiac cycle.

OR

B) Draw a labeled diagram of GI Tract. Discuss mechanical and chemical digestion in the stomach.

Q-6 Answer the following in detail. (Any 2) **[10]**

A) Give the composition and function of lymph.

B) Write a note on layers of GI tract.

C) Describe cardiac action potential in detail.