

Bachelor of Science (B.Sc.) (CBCS Pattern) First Semester
USBCT-C01 - Biochemistry Paper-I (Human Physiology)

P. Pages : 2

Time : Three Hours



GUG/W/18/11540

Max. Marks : 50

- Notes :
1. All questions are compulsory and carry equal marks.
 2. Draw diagrams wherever necessary.

1. What is blood coagulation? Give name of clotting factors. Explain extrinsic mechanism of blood clotting. **10**

OR

- a) Discuss the hemoglobin structure. **2½**
- b) Give the functions of WBCs. **2½**
- c) Write a note on thalassemia. **2½**
- d) Discuss the role of Vitamin 'K' in blood clotting. **2½**

2. Discuss the molecular organization of muscle fiber. **10**

OR

- a) Discuss digestion of protein in pancreatic juice. **2½**
- b) Write short note on digestion of lipids. **2½**
- c) Discuss mechanism of absorption of carbohydrates. **2½**
- d) Discuss the sliding mechanism of muscle contraction. **2½**

3. Discuss in detail functions of male & female sex hormones. **10**

OR

- a) Draw well labelled diagram of multipolar neuron Enlist types of neuron. **2½**
- b) Write a note on a Impulse generation. **2½**
- c) Discuss spermatogenesis with diagram. **2½**
- d) Give the functions of HCG hormone. **2½**

4. Give the functions of Adrenalin, nor-adrenalin & thyroxin hormone. **10**

OR

- a) What are hormones? How they are classified on the basis of their chemical nature. 2½
- b) Explain the mechanism of action of peptide hormone. 2½
- c) What is second messenger? Draw the structure of cAMP. 2½
- d) Give the functions of parathyroid hormone. 2½

5. Answer **any ten** from following. **10**

- a) What is chloride shift?
- b) Name any two blood anticoagulants.
- c) Give two functions of RBCs.
- d) Name the digestive juices involved in protein digestion.
- e) Name the organ which secrete hydrochloric acid.
- f) Name the monomer from which actin filament is formed.
- g) What is cholinergic transmission?
- h) Define the term Oogenesis.
- i) Draw structure of Progesterone.
- j) Give the function of TSH.
- k) Draw the structure of cGMP.
- l) Name two hormone secreted by Pituitary gland.
