

B.Sc. F.Y. (CBCS Pattern) Sem-I  
**USBCT-C01 - Biochemistry Paper-I : Human Physiology**

P. Pages : 2

Time : Three Hours



**GUG/W/22/11540**

Max. Marks : 50

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Notes : 1. All questions are compulsory and carry equal marks.

1. Enlist factors participate in blood coagulation. Describe in detail extrinsic mechanism of blood clotting. **10**

**OR**

- a) Describe the functions of WBC **2½**
- b) Draw the structure of haem **2½**
- c) Give the composition of blood **2½**
- d) Write a note on sickle cell anemia **2½**

2. Describe in detail digestion of carbohydrates and protein in the alimentary canal. **10**

**OR**

- a) Explain sliding mechanism of muscle contraction. **2½**
- b) Discuss molecular organization of muscle. **2½**
- c) Write a note on types of muscle fiber. **2½**
- d) Describe absorption of lipid. **2½**

3. Discuss in details function of male and female sex hormone. **10**

**OR**

- a) Draw well labeled diagram of neuron? Enlist types of neurons. **2½**
- b) Describe salutatory conduction of nerve impulse. **2½**
- c) Discuss menstrual cycle **2½**
- d) Give the function of HCG. **2½**

4. Discuss the hormones of pituitary gland and give the functions of each 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 structure of cAMP. 2½
- d) Give the functions of parathyroid hormone. 2½

**5.** Answer **any ten** of the following. **10**

- a) What is Bohr's effect.
- b) What is function of platelets.
- c) Give one example of anticoagulant
- d) What is sarcoplasm?
- e) Name the enzyme present in pancreatic juice responsible for lipid digestion
- f) Name the cell which secrete hydrochloric acid in stomach
- g) What is cholinergic transmission
- h) Define the term spermatogenesis
- i) Draw structure of estrogen.
- j) Give the function TSH
- k) Pancrease is both endocrine as well as exocrine gland (True or false)
- l) Name the gland which stimulates melanin synthesis

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