

B.Sc. F. Y. (NEP) Semester-I  
**BSCBC501 / STUG01BCH001 - Biochemistry Core Paper-I - Human Physiology**

P. Pages : 2

Time : Three Hours



**GUG/S/25/15920**

Max. Marks : 40

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

1. Describe the mechanism of blood coagulation in detail. 8

**OR**

a) Write a short note on Plasma Proteins and their functions. 2

b) Draw a well labelled diagram of hemoglobin. 2

c) Explain the Bohr's effect. 2

d) What are the functions of different types of WBC's? 2

2. Explain in detail the sliding mechanism of muscle contraction. 8

**OR**

a) Discuss in short the absorption and digestion of carbohydrates. 2

b) Draw the structure of striated muscle fiber. 2

c) Write a note on absorption of fatty acids in the intestine. 2

d) Write a note on molecular organization of contractile system. 2

3. Describe in detail the mechanism of synaptic transmission. 8

**OR**

a) Draw a well labelled diagram of neuron. 2

b) Write a note on spermatogenesis. 2

c) Explain the process of transmission of impulse in myelinated nerve fiber. 2

d) Write the functions of HCG. 2

4. Give a detailed account of mechanism of action of peptide hormones. 8

**OR**

a) Write a note on CAMP as second messenger. 2

b) Write the roles of pituitary hormones. 2

c) Write a note on classification of hormones. 2

d) Give the mechanism of action of steroid hormone (diagrammatic representation only) 2

5. Write the answers of **any eight** of the following (1 mark each). 8

a) What is the composition of blood?

b) What is the role of Vitamin K in coagulation?

c) Write any one example of anticoagulant.

d) Complete digestion of proteins leads to ----- (fill in the blank).

e) What is the sarcomere?

f) What are the different types of muscle fibers?

g) What are the different types of neurons?

h) Write any two functions of female sex hormones.

i) What is the full form of GABA?

j) Pancreas is a part of endocrine system.

k) What are the thyroid hormones?

l) Draw the structure of cGMP.

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