Reg. No. | | | | | | | | | |

**BSCBCC 381**

# Choice Based Credit System Sixth Semester B.Sc. Degree Examination, September 2022

## (2021-22 Batch Onwards)

## BIOCHEMISTRY (Paper – VII)

## Human Physiology and Clinical Biochemistry

Time : 3 Hours | Max. Marks : 80

PART – A

I. Answer **any ten** of the following questions : **(10×2=20)**

1. a) Define action potential. What is the action potential in an excited neuron ?

   b) Write on clinical significance of SGOT.

   c) Which lipid is called good cholesterol ? Justify it.

   d) Write on sickle-cell anaemia.

   e) Give the properties of RBC.

   f) What are neurotransmitters ? Give examples.

   g) Write the composition of lymph.

   h) Give the structure and functions of smooth muscle.

   i) What is diuresis ? How it is caused ?

   j) Name the hormones of adrenal cortex.

   k) Give any two biological role of LH.

   l) Name the contractile and regulatory proteins in skeletal muscle.

**P.T.O.**

## PART – B

II. Answer the following questions : **(4×15=60)**

### UNIT – I

2. a) Explain the structure of a multipolar neuron with a neat labeled diagram.
   b) Explain tubular reabsorption in nephron.
   c) Describe the transmission of impulse across synapse. **(4+4+7)**

OR

3. a) Explain the structure of nephron with a neat labeled diagram.
   b) Write a note on contraction cycle.
   c) Discuss growth and remodeling of long bone. **(5+3+7)**

### UNIT – II

4. a) Explain the structure, properties and functions of platelets.
   b) Write a note on composition and functions of CSF.
   c) Describe the mechanism of blood coagulation. **(4+4+7)**

OR

5. a) Explain the structure and functions of WBC.
   b) Write a note on BBB.
   c) Discuss the role of lungs in acid-base balance. **(5+3+7)**

### UNIT – III

6. a) Explain the biological role of oxytocin and testosterone.
   b) Discuss the mechanism of action of protein hormone.
   c) Give an account of biological role and deficiency disorders of thyroxine. **(4+4+7)**

OR

7. a) Explain the biological role of mineralocorticoids.
   b) Write a note on G-protein.
   c) Give an account on biological role and deficiency disorders of GH. **(5+3+7)**

UNIT – IV

8. a) Discuss LDH and CPK.
   b) Write a note on Diabetes mellitus.
   c) Give an account on clinical significance of urea, uric acid and creatinine in urine. **(4+4+7)**

OR

9. a) Explain the clinical significance of SGPT and ALP.
   b) Write a note on Lesch-Nyhan syndrome.
   c) i) Give an account on variation of pigments in blood during pathological conditions.
      ii) Write a note on lipid profile. **(5+3+7)**

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