Exam.Code:0006
Sub. Code: 0557

2072

B.A./B.Sc. (General) Sixth Semester

Bio-Chemistry

Paper – B: Applied Bio-Chemistry – II

Time allowed: 3 Hours Max. Marks: 45

NOTE: *Attempt five questions in all, including Question No. I which is compulsory and selecting one question from each Section.*

x-x-x

1 Answer the following in brief:

i. What are neurotransmitters? Give one example.
ii. Define haemoglobin E disease.
iii. What is coagulation?
iv. What do you understand by synaptic potential?
v. Write characteristics of smooth muscle.
vi. What is sarcomere?
vii. Write about active immunization.
viii. What is nephron?
ix. What is the first line of defence in human body? (1x9=9)

Section-I

2 Differentiate between

a) Innate and adaptive immune responses
b) Primary and secondary lymphoid organs. (5,4)

3 a) Write short notes on

i) ELISA

ii) Immunoblotting

b) Discuss various types of immunoprecipitation. (5,4)

Section-II

4 a) Write the mechanism of transport of carbon dioxide in blood.

b) What is haemoglobin? Explain its role in carrying oxygen in blood. (5,4)

5 Write short notes on the following

a) Composition of blood

b) ABO grouping

c) Haemoglobinopathies (3x3=9)

Section-III

6 a) What are the three types of muscles? Give examples.

b) Draw a well labelled diagram of muscle cell.

c) Write a short note on collagen. (3x3=9)

P.T.O.

7 a) How do calcium ions participate in muscle contraction? Why do both muscle contraction and muscle relaxation spend energy?

b) Describe the muscle organisation of smooth cells. (5,4)

Section-IV

8 a) Define synapse. Discuss synaptic transmission of the impulse.

b) Write a note on neuromuscular junction. (4,5)

9 a) Classify nervous system and discuss functions of hypothalamus.

b) Differentiate between sympathetic and parasympathetic nervous systems. (4,5)

x-x-x