

1059

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 Unit.

x-x-x

I. Answer the following in brief:-

- a) What is passive immunization?
- b) Define anaemia.
- c) What is coagulation?
- d) What is immunological memory?
- e) Write characteristics of cardiac muscle.
- f) What are neuromodulators?
- g) What is reflex action?
- h) Differentiate between humoral and cell mediated immunity
- i) What do you understand by xenobiotic toxicity? (9x1)

UNIT – I

- II. a) Write structure and properties of Immunoglobulins.
- b) What is complement system? Briefly explain the alternate pathway of complement activation. (5,4)
- III. a) Discuss two important types of immunodiffusion and their significance.
- b) Briefly describe applications of immunoblotting. (5,4)

UNIT – II

- IV. a) Write composition of blood. Explain the process of blood clotting.
- b) Discuss different types of blood disorders. (6,3)
- V. a) Explain buffer system in our body.
- b) Describe role of kidneys and lungs in maintenance of acid base balance. (4,5)

(2)

UNIT – III

- VI. a) What are the three types of muscles? Give examples.
b) Draw a well labeled diagram of muscle cell.
c) Write a short note on collagen. (3x3)
- VII. a) Write role of calcium in Skeletal muscle contraction and relaxation.
b) Discuss cardiac excitation-contraction coupling. (5,4)

UNIT – IV

- VIII. a) Define synapse. Discuss synaptic transmission of the impulse.
b) Explain the concept of action potential. Add a note on various ion channels. (4,5)
- IX. a) Write a short note on:-
i) Conductivity of nerve fibers
ii) Neurotransmitter
b) Classify nervous system and discuss functions of hypothalamus. (4,5)

x-x-x