Seat No. : _____

NJ-114

December-2015

B.Sc., Sem.-III

Core Course-202 : Biochemistry

Time : 3 Hours] **[Max. Marks : 70**

Instructions : (1) **All** questions are compulsory.
(2) **All** questions carry equal marks.
(3) Draw labelled diagrams wherever necessary.
(4) Mention clearly the options you attempt.

1. (a) Discuss the technique of Cell fractionation to separate Cell organelles in detail. **8**
   (b) Discuss the structure of Nucleus. **6**

OR

   (a) Discuss the Fluid-Mosaic structure of Plasma membrane and state its functions. **9**
   (b) Write a note on Peroxisomes and Glyoxysomes. **5**

2. (a) Discuss the synaptic transmission of Nerve impulse. **7**
   (b) Mention different types of Glial cells and state their functions. **7**

OR

   (a) Discuss contraction and relaxation of Muscle. **8**
   (b) State various functions of Bone. **6**

3. (a) Discuss briefly the functions of Hormones. **7**
   (b) Write the dietary sources, coenzyme form and biochemical functions of Thiamine. **7**

OR

   (a) Explain the physiological role of Insulin. **6**
   (b) Write the structure and functions of Vitamin C. **8**

4. (a) Discuss Cardiac cycle in detail with a diagram. **10**

(b) Define and give normal value of : **4**

(1) Systolic pressure

(2) Diastolic pressure

OR

Write a short note on : **14**

(1) Cardiac output.

(2) ECG

5. Answer in brief : **14**

(1) State two functions of Golgi bodies. **2**

(2) State any two differences between 70s and 80s Ribosomes. **2**

(3) What is Goiter ? **1**

(4) Name the deficiency disease and coenzyme forms of Niacin. **2**

(5) List two functions of Muscles. **2**

(6) What is Hyroxyapatite ? Where is it found ? **2**

(7) Define Artery and Vein. **2**

(8) Name the junctional tissues of the Heart. **1**

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