

Seat No. : _____

NE-117
November-2013
B.Sc. Sem.-III
Biochemistry Theory
Core Course-202

Time : 3 Hours]

[Max. Marks : 70

1. (A) Briefly describe cell fractionation method used to study cell organelles. **14**

OR

(B) (i) Describe the composition and functions of Mitochondria and Plasma membrane. **7**

(ii) Give significance of marker enzymes. **7**

2. (A) Draw a haversian system and describe the factors affecting bone remodeling. **14**

OR

(B) (i) List the functions of Glial cells. **7**

(ii) Explain the Sliding filament theory. **7**

3. (A) Describe the structure, synthesis and release of thyroid hormones. **14**

OR

(B) Describe the structure and various biochemical roles of Vitamin C. **14**

4. (A) What is blood pressure ? Describe the factors affecting blood pressure. **14**

OR

(B) Explain ECG in detail and the significance of each wave. **14**

5. Each question carries 1 marks. **14**

State true or false. If false explain why.

(i) Blood pressure is measured using stalagmometer.

(ii) Any change in fatty acid structure that interferes with close packing in the membrane interior decreases membrane fluidity.

(iii) An osteon is cuboidal in shape.

(iv) Atrial cycle and ventricular cycle overlaps for 0.1 sec.

Fill in the blanks :

- (v) A syndesine is _____
- (vi) The third heart sound is generated when _____.
- (vii) The three muscle proteins associated with actin are _____.
- (viii) The coenzyme form of Pantothenic acid is _____.
- (ix) The enzyme that converts ATP to cAMP is _____.
- (x) Holes in the nuclear membranes that permit communication between the nucleus and the cytoplasm are called _____.
- (xi) What is pulse ? What is its significance ?
- (xii) How are prokaryotes different from eucaryotes ?
- (xiii) Draw figures to show action potential in nerve cells, skeletal muscle and cardiac muscle.
- (xiv) Give the structure of NAD⁺ and FAD.
