

# PC-10489/N

**M-68/2110**

BIOCHEMISTRY-I  
Semester-I  
(Syllabus Dec. 2019)

Time : Three Hours]

[Maximum Marks : 54

**Note** : Attempt *two* questions each from Section A & B.  
Section C is compulsory.

## SECTION – A

- I. What is ionization of water? Explain Ion product of water and pH scale.
- II. Give classification and general function of Carbohydrates.
- III. Explain TCA cycle with proper labelling.
- IV. Explain electron transport chain.

## SECTION – B

- V. What are fats? Enlist essential fatty acids and give reason why are they called so?

VI. Explain  $\beta$ -oxidation?

VII. What is metabolism? Explain differences in metabolism in well fed and starvation state.

VIII. What are vitamins? Classify them on the basis of dietary requirements.

### SECTION – C

IX. Write short notes on the following :

- (a) Weak interactions.
  - (b) Buffers.
  - (c) Polysaccharides.
  - (d) Glyoxylate cycle.
  - (e) Oxidative phosphorylation.
  - (f) Phospholipids.
  - (g) Lipoproteins.
  - (h) Coenzymes.
  - (i) Food additives.
  - (j) Irritants.
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