M-1612030701040300 Seat No. _____

M. P. M. (Sem. IV) (CBCS) Examination

May / June – 2018

Pharmaceutical Chemistry - IV (Biochemistry - I)

Time : **3** Hours] [Total Marks : **80**

Instructions : (1) Figure to the **right** indicate marks.
(2) Answer any **three** questions from each section. Question one and question five are compulsory.
(3) Draw neat and clean diagram where required.

SECTION - I

1 Answer the following questions : (any **seven**) **14**

A. What is tautomerization ?
B. Explain : PDH complex.
C. What is Ketonemia and ketonuria.
D. Define Epimers with example.
E. Define : Catabolism and Anabolism.
F. Define: Rancidity and Saponification.
G. Explain : Von Gierke's disease.
H. What is optical activity of sugar ?

2 Answer the following questions :

A. Discuss : TCA cycles and calculate energetics in TCA cycle. **7**
B. Write a note on derivatives of monosaccharides. **6**

3 Answer the following questions :

A. Discuss: Test to assess liver function. **7**
B. What is enzyme inhibition? Write a detail note on enzyme inhibition. **6**

4 Answer the following questions :

A. Define and classify : Carbohydrates. **7**
B. Explain: Glyoxalic Acid Cycle. **6**

SECTION - II

5 Answer any **two** out of **three** : **14**

A. Discuss about Embden - Meyerhof Pathway.

B. Discuss biosynthesis of cholesterol in detail.

C. Discuss biochemical functions, dietary sources, absorption and disease states of calcium.

6 Answer the following questions :

A. Discuss : Reactions of monosaccharides. **7**

B. Calculate : ATP generation in Glucose metabolism. **6**

7 Answer the following questions :

A. What is lipid ? Classify lipid with examples. **7**

B. Discuss biochemical functions, dietary sources and disease states of Iodine. **6**

8 Answer the following questions :

A. Explain : Vitamin - A as a coenzyme and their significance. **7**

B. Enlist different factors affecting enzyme activity. How concentration of substrate affect enzyme activity ? **6**
