

**NTK/KW/15–6972**

**First Semester Examination for the Degree  
of Bachelor of Pharmacy**

**PHARMACEUTICAL      BIOCHEMISTRY**

**Paper – ( 1 T 4 ) Paper – 4**

Time : Three Hours ]

[ Max. Marks : 80

- N. B. : (1) Question No. 1 is compulsory.  
(2) Solve any four questions from the remaining.  
(3) Draw neat labeled diagram wherever necessary.

1. Solve any **Five** of the following.
  - (a) Define and classify proteins with suitable examples.
  - (b) Classify enzymes with suitable examples.
  - (c) Define and give significance of followings :—
    - (i) Iodine value
    - (ii) Saponification value
  - (d) Explain in short blood glucose regulation in body.
  - (e) Give mechanism of action of enzymes.
  - (f) Classify fatty acids with suitable examples.
  - (g) Give structure of DNA with specifications.  
 $4 \times 5 = 20$
  
2. (a) Discuss glycolysis in detail with energetics. 10  
(b) Give reaction involved in osazone formation. 5

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Contd.

3. (a) Describe urea cycle in detail with structures. 10  
(b) Explain Transamination with suitable examples. 5
4. (a) Write a detail note on 'Fatty acid oxidation'. 10  
(b) Explain Ketogenesis. 5
5. (a) Explain various steps of Kreb's cycle. 10  
(b) Give biosynthesis of Eicosanoids. 5
6. (a) Describe Enzyme inhibition in detail and give biological role of enzymes. 10  
(b) Enlist factors affecting enzyme action. Explain effect of pH, temperature and substrate concentration on enzyme action. 5
7. Write a note on followings :—  
(a) Replication of DNA.  
(b) Gluconeogenesis.  
(c) Uronic acid pathway.  $5 \times 3 = 15$