

Roll No .....

**PY-404**

**B.Pharmacy IV Semester**

Examination, December 2016

**Pharmaceutical Chemistry-V**

**(Biochemistry)**

**Time : Three Hours**

**Maximum Marks : 70**

- Note:** i) Answer five questions. In each question part A, B, C is compulsory and D part has internal choice.  
ii) All parts of each question are to be attempted at one place.  
iii) All questions carry equal marks, out of which part A and B (Max.50 words) carry 2 marks, part C (Max.100 words) carry 3 marks, part D (Max.400 words) carry 7 marks.  
iv) Except numericals, Derivation, Design and Drawing etc.

1. a) Define Bioenergetics.  
b) Describe various forms of energy.  
c) What is Energy Coupling?  
d) Discuss mechanism of ATP synthesis.

OR

Write a note on determination of primary structure and higher order of structures of proteins.

2. a) Define vitamins and their uses.  
b) Give mechanism of action of enzyme.  
c) Explain isoenzyme with example.  
d) Explain enzyme kinetics and its mechanism.

OR

Explain the use of enzyme in technical diagnosis.

3. a) Explain Glycolysis.  
b) Define and explain gluconeogenesis.  
c) Differentiate glycogenesis and glycogenolysis.  
d) Write an exhaustive note on significance reaction and energetics of citric acid cycle.

OR

Describe various tests and strategies for detection of metabolic disorders.

4. a) Define phospholipids and its significance.  
b) Define Eicosanoids with example.  
c) Define nitrogen fixation.  
d) Give reaction and intermediates of urea biosynthesis.

OR

Discuss in detail the biosynthesis of RNA with biological significance.

5. a) Define Redox potential.  
b) Explain chemical mutagenesis.  
c) Discuss conversion of  $\alpha$ -amino acids to keto acids.  
d) Write a note on nomenclature and classification of enzymes.

OR

Write a note on enzyme/coenzyme involved in oxidation/Reduction and its control.

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