

PY - 404

Roll No

B.Pharm. IV Semester Examination, June 2014
Pharmaceutical Chemistry-V (Biochemistry)

Time : Three Hours

rgpvonline.com

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.

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| 1. a) | Classify Amino Acids. | 2 |
| b) | Give two functions of proteins. | 2 |
| c) | Discuss biological significance of ATP. | 3 |
| d) | Respiratory chain and its role in energy capture. | 7 |
| | OR | |
| | Oxidative phosphorylation and its mechanism. | 7 |
| 2. a) | Give two factors responsible for enzyme activity. | 2 |
| b) | Discuss two vitamins from the B - complex group which act as coenzymes. | 2 |
| c) | Discuss Isozymes and their uses. | 3 |
| d) | Explain the role of enzyme in diagnosis. | 7 |
| | OR | |
| | Discuss the enzyme used in biological oxidation. | 7 |
| 3. a) | Define Glycolysis and Glycogenolysis. | 2 |
| b) | Mention two glycogen storage diseases. | 2 |
| c) | Discuss the factors responsible for blood sugar regulation. | 3 |
| d) | Draw the Citric Acid Cycle and discuss its energetics. | 7 |
| | OR | |
| | Draw the pentose PO ₄ phosphate. | 7 |
| 4. a) | How are Ketone bodies formed and utilized. | 2 |
| b) | What are phospholipids and sphingolipids. | 2 |
| c) | Show β -oxidation of fatty acids. | 3 |
| d) | How is cholesterol formed from squalence. | 7 |
| | OR | |
| | How are Eicosanoids biosynthesized in human body. | 7 |
| 5. a) | Give two biochemical differences between RNA and DNA. | 2 |
| b) | Draw Urea cycle. | 2 |
| c) | How is bile pigment formed from Heme? | 3 |
| d) | Discuss biosynthesis of DNA and its replication. | 7 |
| | OR | |
| | What do you understand from Genetic code. | 7 |