

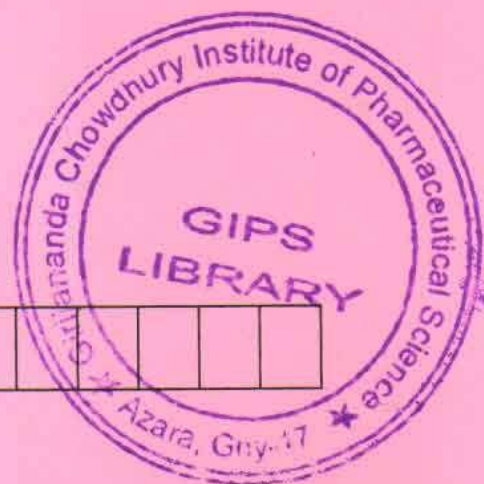
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PY 132605

Roll No. of candidate

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2018

B.Pharm. 6th Semester End-Term Examination

BIOCHEMISTRY

Full Marks – 100

Time – Three hours

The figures in the margin indicate full marks
for the questions.

Answer Q.No. 1 and any Six from the rest

1. Choose the correct answers : (10 × 1 = 10)
- (a) Which enzyme uses H₂O₂ as substrate?
- (i) Catalase
 - (ii) Malate dehydrogenase
 - (iii) Phosphorylase
 - (iv) Ascorbic oxidase
- (b) HMP Pathway is regulated by
- (i) Arsenite
 - (ii) Catalase
 - (iii) Glucose-6- Phosphatase
 - (iv) Glucose-6-P dehydrogenase

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- (c) Propionate can form glucose by entering through
- (i) Glycolytic Pathway
 - (ii) TCA cycle
 - (iii) Uric acid pathway
 - (iv) None of the above
- (d) For activation long chain fatty acid needs
- (i) 2P
 - (ii) 1P
 - (iii) 3 P
 - (iv) Activation not required
- (e) Pyruvate kinase enzyme converts
- (i) Pyruvate to lactate
 - (ii) Phosphoenolpyruvate to pyruvate
 - (iii) Pyruvate to acetyl CoA
 - (iv) Acetyl CoA to Oxaloacetate
- (f) In the TCA cycle fumarate is converted to:
- (i) Succinate
 - (ii) Oxaloacetate
 - (iii) Succinyl CoA
 - (iv) Malate
- (g) Difference in ATP between aerobic and anaerobic condition during glycolysis is
- (i) 8
 - (ii) 2
 - (iii) 6
 - (iv) 4

- (h) The free energy is derived from respiratory chain oxidation within:
- (i) Cytosol
 - (ii) Microsomes
 - (iii) Mitochondria
 - (iv) All of the above
- (i) Numbers of enzyme attack dipeptide bond is
- (i) Two
 - (ii) Three
 - (iii) One
 - (iv) Four
- (j) Identify the Stop code for protein synthesis :
- (i) UAA
 - (ii) CAG
 - (iii) GUA
 - (iv) AUG
2. (a) List the names of enzyme act on glycolytic pathway. (8)
- (b) State the factors affecting enzyme activity. (7)
3. (a) Schematically represent the TCA pathway and explain its importance in human. (8)
- (b) Calculate the numbers of ATP generated after complete oxidation of glucose. (7)
4. Explain the process of protein synthesis in detail. (15)

5. (a) Discuss the mechanism of β oxidation in odd chain fatty acid. (8)
- (b) State the role of the carrier in lipid metabolism. (7)
6. (a) Explain the mechanism of transamination. (8)
- (b) Explain the physiological functions of fat soluble vitamins. (7)
7. (a) What is enzyme and co-enzyme? (2)
- (b) Write the principle of IUB classification of enzymes. (4)
- (c) State the different types of enzyme inhibition with their mechanism. (6)
- (d) What are the factors that affect enzyme activity? (3)
8. (a) Schematically represent the pathway for conversion of lactate to glucose. (10)
- (b) Discuss the importance of HMP shunt. (5)
9. Write notes on :
- (a) Urea cycle
- (b) Ketone bodies
- (c) Oxidative deamination. (3 × 5 = 15)
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