

B.Pharm II Year II Semester (R13) Supplementary Examinations May/June 2018

**PHARMACEUTICAL BIOCHEMISTRY**

Time: 3 hours

Max. Marks: 70

**PART – A**

(Compulsory Question)

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- 1 Answer the following: (10 X 02 = 20 Marks)
- Define enzyme induction.
  - Write the types of diabetes mellitus.
  - Name four metabolic disorders of urea cycle with enzyme defect.
  - Give the biological significance of carbohydrates.
  - Name the bile salts and give their significance.
  - What is Ketogenesis?
  - Name the essential amino acids.
  - Give the physiological functions of serotonin.
  - What is phenylketonuria?
  - Write the inhibitors of ETC.

**PART – B**

(Answer all five units, 5 X 10 = 50 Marks)

**UNIT – I**

- 2 Define active transport. Explain sodium and potassium transport in detail.

**OR**

- 3 Outline the phenomenon of oxidative phosphorylation using ETC in mitochondria.

**UNIT – II**

- 4 Define enzyme inhibition and discuss different types of enzyme inhibitions.

**OR**

- 5 Define an enzyme. Outline the IUB classification of enzymes with examples. Explain the mechanism of enzyme action.

**UNIT – III**

- 6 Define glycolysis. Describe the biochemical pathway for the breakdown of glucose to pyruvate and lactate. Write about the energetic.

**OR**

- 7 Define gluconeogenesis and explain the reactions involved in it with its significance.

**UNIT – IV**

- 8 Explain the process of  $\beta$ -oxidation of fatty acids with energetic considering palmitic acid as example.

**OR**

- 9 Explain the de novo pathway of purine nucleotides.

**UNIT – V**

- 10 Enlist the tests to assess the renal function. Explain the clearance tests for creatinine and urea.

**OR**

- 11 Enlist the different liver function tests. Discuss the test to assess the metabolic and detoxification capacity of liver.

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