Code: 13R00403

R13

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)

(a) Define enzyme induction.
(b) Write the types of diabetes mellitus.
(c) Name four metabolic disorders of urea cycle with enzyme defect.
(d) Give the biological significance of carbohydrates.
(e) Name the bile salts and give their significance.
(f) What is Ketogenesis?
(g) Name the essential amino acids.
(h) Give the physiological functions of serotonin.
(i) What is phenylketonuria?
(j) 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 β-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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