



B.TECH DEGREE EXAMINATIONS: JUNE 2015

(Regulation 2009)

Third Semester

BIOTECHNOLOGY

BTY102: Biochemistry

Time: Three Hours

Maximum Marks: 100

Answer all the Questions:-

PART A (10 x 1 = 10 Marks)

- The glycosidic linkage found in D-Lactose is
 - β 1 \rightarrow 2
 - β 2 \rightarrow 1
 - β 2 \rightarrow 1
 - β 1 \rightarrow 4
- Hemoglobin is classified as _____ structured protein
 - Primary
 - Secondary
 - Tertiary
 - Quaternary
- The number of ATP consumed in 'Pay On' phase of EMP is
 - 3
 - 2
 - 4
 - 1
- The total number of ATP produced after complete oxidation of one glucose in glycolysis, TCA and oxidative phosphorylation is estimated to be
 - 24 ATP
 - 12 ATP
 - 30 ATP
 - 28 ATP
- _____ aminoacid is derived from phosphoglycerate.
 - Serine
 - Alanine
 - Proline
 - Lysine
- Which of the following is an essential aminoacid?
 - Arginine
 - Cysteine
 - Histidine
 - Proline
- Normal healthy adults synthesizes cholesterol at a rate of approximately ___g / day.
 - One
 - Four

23. a) i) Outline the steps of Urea cycle. (7)
ii) Summarize the biosynthetic pathway of Serine (7)

(OR)

- b) Compare and contrast the concerted inhibition and sequential feedback inhibition

24. a) i) Explain the biosynthesis of Fatty acids with steps. (7)
ii) Outline the steps involved in biosynthesis of Phospholipids. (7)

(OR)

- b) Summarise the biosynthetic pathway and regulation of cholesterol

25. a) i) Explain the denovo synthesis of Purines. (7)
ii) Describe the elaborate reactions involved in Salvage pathways of Pyrimidines (7)

(OR)

- b) Outline the degradative pathways of Purines and Pyrimidines.
