

Eastern University, Sri Lanka,

First Year, Second Semester Examination In Agriculture – 2009 / 2010

ACI: 1201 - Biochemistry (3: 30/30)

Answer all Questions

Time allowed: 02 hours



1. a) Outline the catabolic pathway whereby the Palmitic acid ($C_{15}H_{31}COOH$) is converted to acetyl coenzyme A.
b) Give a balance sheet equation indicating the number of ATP molecules generated when one molecule of palmitic acid is completely oxidized to carbon dioxide via Tri Carboxylic Acid (TCA) cycle? (Explain all your calculations).
2. a) "Glycolytic end product pyruvate has different fates in the living cells"- Explain.
b) Briefly discuss the regulatory mechanism of the following;
 - i) Glycolysis
 - ii) Fatty acid biosynthesis
3. a) Outline how the Pentose Phosphate Pathway can supply ribose-5-phosphate for the synthesis of RNA.
b) Write an account on Gluconeogenesis starting from pyruvate.
4. Write short notes on the following:
 - a) Muta-rotation of glucose
 - b) Secondary structures of Protein
 - c) Tri Carboxylic Acid (TCA) Cycle
