

Eastern University, Sri Lanka



First Year, Second Semester Examination In Agriculture – 2011/2012

ACH 1201 - Biochemistry (3: 30/30)

External Degree (Repeat)

Answer all Questions

Time allowed: 02 hours

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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.  
(Explain all your calculations).
  2. Explain the following:
    - a) Structures of proteins
    - b) Formation of urea in human.
  3. a) Outline how the Pentose Phosphate Pathway can supply ribose-5-phosphate for the synthesis of RNA.  
b) Outline the Citric acid (TCA) cycle.
  4. Write a brief account on the following:
    - a) Polysaccharides in plants
    - b) Glycolysis
    - c) Lipids in cells