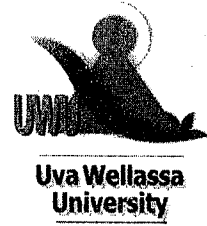


Uva Wellassa University
Faculty of Animal Science and Export Agriculture
BSc in Tea Technology & Value Addition



End Semester Examination – September / October 2015
Year II - Semester I

Fundamentals of Biochemical Engineering (TEA 221-2)

Instructions

Answer all questions

No. of questions : Three (03)
No. of pages : Two (02)
Time : One (01) Hour
Total marks allocated : 60 %



PART III - Essay

Question 01

- I. Write the Bernoulli's principle of fluid mechanics
- II. Discuss the applications of Bernoulli's principle

(20 marks)

Question 02

An air sample at 30⁰C Dry Bulb Temperature and 40% Relative Humidity is heated up to 45⁰C. Find the following properties of heated air sample.

- I. Relative Humidity (04 marks)
- II. Dew Point Temperature (04 marks)
- III. Humidity Ratio (04 marks)
- IV. Determine the amount of sensible heat (kJ/kg Dry Air) needed to increase the temperature of above air sample

(08 marks)

Question 03

Write short notes on following

- I. First law of thermodynamics
- II. Removal of insoluble particulates in downstream process
- III. Adsorption
- IV. Gel filtration chromatography

(20 marks)

