Eastern University Sri Lanka

nd Year Second Semester Examination in Science –2013/2014 (Oct-2016)

Practical Examination in Science

BT253 Plant Biochemistry

ver all question **Time: 2 hours**

1. You have been provided with three different solutions of **A, B & C.** Divide each solution in to four portions and carry out the following test for each of them. Identify **A**, **B** and **C** as far as possible with inferences and explain the reason for determination.

(i)Add 2 drops of α–napthol solution to 2 ml of one portions and then pour about 1ml of $H_2 SO_4$ carefully down side of the test tube.

(ii) Add few drops from the second portions of the test solution to 2 ml of Benedicts' reagent and place the test tube in a boiling water bath for five minutes.

(iii) To 5 ml of third portions of the sample add five drops of con. HCl, heat for five minutes on the boiling water bath and do the test mentioned in (ii)

(iv) Add alkaline $CuSO_4$ in last portions of the Sample.

(50 marks)

2. Identify the experimental set up **D, E, F, G& H** and explain its biochemical uses.

(30 marks)

3. 25 ml of milk samples **K** and **L** were pipette out in to a conical flask separately . And 1ml of phenolphthalein was added into each sample. Those two samples were titrated against 0.1M NaOH very cautiously to faint pink tinge. (1ml of 0.1M NaOH solution is equivalent to 0.009g lactic acid) The titrated reading were 8.50 ml and 16.50 ml respectively

(i) Find out the amount of Lactic acid present in the milk samples K & L as in grams per 100ml

(ii) Give the basic principle involved in each of the step mention above and discuss the acidity of milk samples

(20 marks)