



Uva Wellassa University of Sri Lanka
Faculty of Animal Science & Export Agriculture

B.Sc. in Tea Technology and Value Addition

End Semester Examination August/September 2011
Year III Semester II



Tea Process Engineering and Factory Automation (TEA 322-3)

Instructions

Answer **all** the questions

No. of questions : 03

No. of pages : One (01)

Time : 1 ½ hours

Total marks allocated : 50%

Index No:

Part III Essay

- (1) A fixed amount of moist air initially at 45°C, 1 atm, and 40% relative humidity is cooled down to 18°C at constant pressure. Determine the amount of condensed water (in g / kg dry air) and heat removed (kJ/kg dry air), if condensation occurs. How much heat (kJ/kg dry air) should be given to bring that air to comfort zone at 27°C.
- (2) Briefly discuss the electrical items and gear systems used in tea processing.
- (3) Large amount of electricity is used for withering in Sri Lankan tea factories. Give your suggestions by explaining briefly to reduce the cost on electrical energy.