

EASTERN UNIVERSITY, SRI LANKA

THIRD YEAR FIRST SEMESTER EXAMINATION IN AGRICULTURE- 2011/2012

(Jan/Feb-2014)

AE 3101- POSTHARVEST TECHNOLOGY

Time: One hour

Answer all questions

1. a. "Fruits and vegetables are living entity". Justify this statement and explain how the postharvest methods involve in controlling the physiological and biochemical changes in fruits and vegetables. (50 marks)
- b. In an experiment, five tons of paddy grains with 20% (wet basis) initial moisture content was dried to moisture content of 13% (wet basis) for safe storage using a deep layer dryer. The total available drying time was 50 hours. The atmospheric air at 25°C (db) and 50% RH was used in this drying process. If temperature and RH of exhaust air were 20°C and 90% respectively, determine the following;
- i. Amount of moisture removed in this drying process.
- ii. Flow rate of air in m³/s.
- (Psychrometric chart is provided) (50 marks)
2. a. Briefly describe the role of postharvest factors in the storage life of fruits and vegetables. (40 marks)
- b. Write short notes on the following;
- i. Minimizing postharvest losses of cereal grains. (30 marks)
- ii. By-product utilization of paddy. (30 marks)