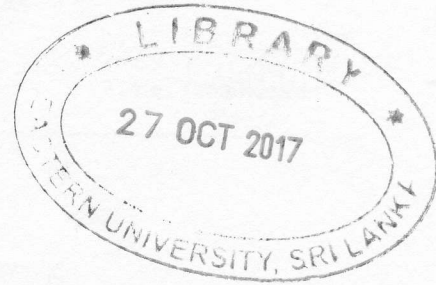


**EASTERN UNIVERSITY, SRILANKA**  
**Third Year First Semester Examination in Agriculture – 2014/2015**  
**(Jan/Feb – 2017)**  
**Proper / Repeat**

**AE 3101 – Postharvest Technology**



Time: One hour  
Answer all questions

01. (a) Write a brief note on recirculating batch dryers. (50 Marks)
02. (b) Briefly describe about paddy separation in the milling process. (50 Marks)
03. Milk is to be transported for a distance of 2100 km in a 7m long, 2m external diameter cylindrical tank. The walls of the tank are constructed of 5cm thick urethane insulation sandwiched between two metal sheets. The milk is precooled to 3<sup>0</sup>C before loading and its temperature is not to exceed 7<sup>0</sup>C on arrival. The average ambient temperature can be as high as 30<sup>0</sup>C, and the effect of solar radiation and the radiation from hot pavement surfaces can be taken to be equivalent to a 4<sup>0</sup>C rise in ambient temperature. If the average velocity during transportation is 60 km/h, determine whether the milk can be transported without any refrigeration.

Thermal conductivity of urethane is given to be 0.029 W/m·<sup>0</sup>C. The density and specific heat of refrigerated milk at temperatures near 0<sup>0</sup>C are 1000 kg/m<sup>3</sup> and 3.79 kJ/kg·<sup>0</sup>C respectively.

(100 Marks)