

EASTERN UNIVERSITY, SRI LANKA

SECOND YEAR SECOND SEMESTER EXAMINATION IN AGRICULTURE-2005/2006

AEN 2202-POSTHARVEST TECHNOLOGY (2:30/00)

Answer All Questions

Time allowed: Two Hours

Q1.

- a. Briefly discuss the quality control of paddy adopted in Sri Lanka.
- b. Discuss briefly the history of paddy marketing in Sri Lanka.
- c. Briefly describe the moisture migration in storage.

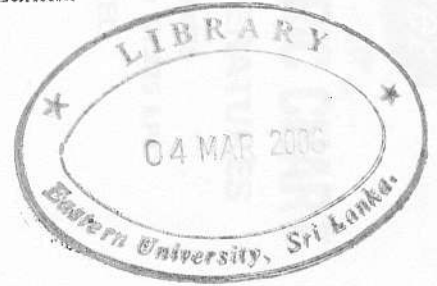
Q2.

- a. Briefly describe the following:
 - i. Adiabatic process of drying;
 - ii. Cooling with dehumidifying of grain;
 - iii. Equilibrium moisture content of paddy.
- b. A bin of grain is to be dried with air at dry bulb temperature of 42°C . The air flow rate is $55\text{m}^3/\text{sec}$. Atmospheric air conditions are (ambient air):
Dry bulb = 32°
Wet bulb = 24°C
The average RH of outlet air is 85%.
 - i. Determine the amount of sensible heat to be added per hour.
 - ii. Find out the amount of moisture removed from grain mass per hour.

(Psychrometric chart is provided)

Q3.

- a. Briefly discuss the following:
 - i. Fixed bed drying;
 - ii. High temperature drying;
 - iii. Sun drying.
- b. Discuss the bulk storage methods practiced in Sri Lanka.
- c. Briefly describe the methods of parboiling of paddy.



Q4. Write short notes on the following:

- i. Importance of postharvest technology for fruits and vegetables;
- ii. Climacteric fruits;
- iii. By product utilization of paddy;
- iv. Controlled Atmosphere and Modified Atmosphere storage of fruits and vegetables





PSYCHROMETRIC CHART

NORMAL TEMPERATURES

SI METRIC UNITS

Barometric Pressure 101.325 kPa

SEA LEVEL

