

KERALA AGRICULTURAL UNIVERSITY

B.Tech (Food.Engg) 2010 Admission
IVth Semester Final Examination- July -2013

Cat. No: Fden.2205

Title: Food Process Engineering (2+1)

Marks: 80

Time: 3 hours

Part A

Answer the following

(10 × 1.0 =10.0)

Fill up the blanks

1. Specific heat of food materials _____ with moisture content.
2. Heat is generated due to _____ in food material in microwave heating
3. The _____ coating is given for the tin can
4. Refrigeration principle is used in _____ dryer.
5. UV light treatment in food material is used for _____.
6. Unit of Viscosity is _____.
7. _____ is an electrical resistance heating.
8. _____ is also called as cold sterilization
9. Spoilage of food occurs at _____ water activity.
10. Movement of water in food drying is by _____ force

Part B

Answer any TEN of the following

(10 × 3.0 =30.0)

Write short note on

1. Thermal diffusivity.
2. Mixing index.
3. Crystallization.
4. Freeze drying
5. High pressure processing.
6. Ohmic heating
7. Blanching
8. Hysteresis effect
9. Constant rate drying period
10. Dielectric heating.
11. Pneumatic conveyor
12. Aseptic processing.

Part C

Answer any SIX questions

(6 x 5.0 =30.0)

1. Discuss thermo bacteriology.
2. Explain principle and working of foam mat dryer.
3. Discuss factors affecting mixing effectiveness.
4. Discuss membrane concentration.
5. Discuss rheological properties of food material.
6. Explain principle and working of microwave dryer.
7. Discuss working of single screw extruder with neat sketch.
8. Discuss briefly about infra red radiation processing.

Part D

Answer any ONE question

(1 x 10.0 =10.0)

1. Discuss in detail about various non-thermal preservation of food materials.
2. Discuss the types of material handing equipments in food processing.
