Assignment 3

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Due on 2019-09-21, 23:59 IST.

9. A suspension containing 150 and 100 sqm of microorganisms A and B, respectively, having a 0 value of 1.1 mm and 0.5 mm, respectively at 121.1°C. Calculate the heating time for this suspension at 121.1°C needed to obtain a probability of survival of 1/10000.

A. B. C. D. E.
9. 13.5 6 12 7

The answer is incorrect.
Score: 0
Accepted Answers: 9.13.5

2. The equivalent 0 value needed to inactivate 90% of a strain of C. Tuberculosis at 121.1°C is 0.2 mm. The 0 value of this organism is

A. B. C. D. E.
2. 4 1 0.24

The answer is incorrect.
Score: 0
Accepted Answers: 0.24

3. A fluid food product is to be sterilized in a continuous system that heats the food to 65°C followed by heating in a 0.5930 m sanitary pipe from 65°C to 121.1°C. Calculate the length of the heating tube in m for a 0.750 process (a) density, viscosity and flow rate of the fluid food product is 1008 kg/m³, 0.57 and 18 L/min, respectively and G0(121.1°C) is 9.0860 m/s.

A. B. C. D. E.
3. 2.28 4.22 7.68 6.37

The answer is incorrect.
Score: 0
Accepted Answers: 2.28

4. The following is the software package used in the food industry to establish thermal processes and evaluate process deviations

A. B. C. D. E.
4. ChemPlot G. 1.7mp G. 1.2mp

The answer is incorrect.
Score: 0
Accepted Answers: ChemPlot

5. It is reported that the kinetics of inactivation of enzymes in food product is first order and the rate constants at 50°C, 60°C, and 70°C are 0.173, 0.254, and 0.353 min⁻¹, respectively. Calculate the activation energy (kcal/mole) and value of T (2 value is 2). The rate constant is: 0.011, 0.014, and 0.015 min⁻¹, respectively.

A. B. C. D. E.
5. 41.75; 7.17°C 41.75; 6.17°C 61.75; 9.27°C 53.55; 9.94°C

The answer is incorrect.
Score: 0
Accepted Answers: 41.75; 7.17°C

6. The batch method accommodates for ___ contribution of Come Up Time to the process time

A. 13 22 30 42

The answer is incorrect.
Score: 0
Accepted Answers: 13

7. The following is not a product factor affecting heating behavior during heat penetration

A. B. C. D. E.

The answer is incorrect.
Score: 0
Accepted Answers: Heat integrity

8. The location of the slowest heating zone in the retort is determined by

A. B. C. D. E.

The answer is incorrect.
Score: 0
Accepted Answers: Temperature distribution test

9. The following assumptions are made while calculating the process time using the Ball method

A. B. C. D. E.
9. 1.94; -1 -1 1.94; -1 1.94; 2 1.94; 1

The answer is incorrect.
Score: 0
Accepted Answers: 1.94; 2