

Unit 4 - Week 2

Course outline

How to access the portal?

Prerequisites Assignment

Week 1: Introduction

Week 2

Costing (continued), Physical and chemical principles in Down stream

Problems in Mass balance, flow sheet

Cell Breakage

Quiz : Assignment 2

Week 2 Feedback : Principles Of Downstream Techniques In Bioprocess

Week 2 Lecture material

Week 3: Cell breakage and Solid-Liquid Separation

Week 4 Solid liquid separation

Week 5 Adsorption

Week 6 Liquid-Liquid Extraction

Week 7 Extraction and membranes

Week 8 Membranes

Precipitation and chromatography

week 10 chromatography

week 11 chromatography and crystallization

Week 12 Drying and distillation

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Assignment 2

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

Due on 2019-08-21, 23:59 IST.

1) Cost of setting up a plant is Rs 2000 crores. If we want to get the return on this investment in 5 years, what should be the annual return in crores?

No, the answer is incorrect.
Score: 0

Accepted Answers:
(Type: Range) 399,401

1 point

2) If cost of 100 L vessel is Rs 10,00,000, what will be the cost of a 300 L vessel ?

No, the answer is incorrect.
Score: 0

Accepted Answers:
(Type: Range) 1933180,1933184

1 point

3) Lovastatin is a

- High value low volume product
- Low value high volume product
- High value high volume product
- Low value high volume product

No, the answer is incorrect.
Score: 0

Accepted Answers:
High value low volume product

1 point

4) Adsorption is based on

- Partition coefficient
- Non bonded interaction
- Molecular weight
- solubility

No, the answer is incorrect.
Score: 0

Accepted Answers:
Non bonded interaction

1 point

5) Gas chromatography cannot be used for

- Small molecules
- Peptides
- Alcohols
- Hydrocarbons

No, the answer is incorrect.
Score: 0

Accepted Answers:
Peptides

1 point

6) 2 litres of methanol is used to recover 50 grams of penicillin . A fermentation broth contains 1 kg of penicillin. How much methanol is need to recover 90% of this antibiotics?

No, the answer is incorrect.
Score: 0

Accepted Answers:
(Type: Range) 39.5,40.5

1 point

7) An extractor can recover 90% of the desired protein with 1000 litres of acetone. If I add one more extractor and another 1000 litres of acetone what will be the overall recovery of the protein?

No, the answer is incorrect.
Score: 0

Accepted Answers:
(Type: Range) 98.6,99.3

1 point

8) In problem 7, if I add only 500 litres of acetone in the second extractor what will be the overall recovery. Assume linear relationship between extraction efficiency and quantity of acetone added.

No, the answer is incorrect.
Score: 0

Accepted Answers:
(Type: Range) 94.3,94.8

1 point

9) When cells are broken in a homogeniser, protein A, followed by B and finally C get released. If the release process is a first order process then the release constant for

- B > C
- B < C
- B=C
- A=C

No, the answer is incorrect.
Score: 0

Accepted Answers:
B > C

1 point

10)In a Cell disruptor the rate of the product released is a function of pressure $1/3$. If the rate has to be doubled what should be the increase in pressure (how many times)?

No, the answer is incorrect.
Score: 0

Accepted Answers:
(Type: Numeric) 8

1 point