

Unit 14 - Week 12 : Case Study for a Process

Course outline

How does an NPTEL online course work?

Week 0 : Prerequisite

Week 1: Introduction

Week 2: Process Variables and Rate

Week 3: Fundamentals of Material Balance

Week 4: Basic Principles of Compressible System

Week 5 : Basic principles of multiphase system

Week 6 : Energy and Its Forms

Week 7 : Energy Balances on Nonreactive Processes

Week 8 : Energy Balances on Reactive Systems

Week 9 : Balances on Transient Process

Week 10 : Computational Techniques

Week 11 : Computer-aided balance calculations

Week 12 : Case Study for a Process

● Lecture 1: Case Study: Cumene Production

● Lecture 2: Case Study: Cumene Production (Continuation)

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Assignment 12

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

Due on 2020-04-22, 23:59 IST.

1) The catalyst used in Cumene production is

1 point

- Acetic acid
 Liquid phosphoric acid
 Zeolite
 Lime stone

No, the answer is incorrect.
Score: 0

Accepted Answers:
Zeolite

2) What is the production yield of phenol by sulphonation of benzene and subsequent fusion with caustic soda?

1 point

- 80-90%
 40-50%
 50-60%
 99%

No, the answer is incorrect.
Score: 0

Accepted Answers:
80-90%

3) What is the byproduct during Cumene production?

1 point

- Di-isopropylbenzene
 Isopropylbenzene
 Benzene
 Phenol

No, the answer is incorrect.
Score: 0

Accepted Answers:
Di-isopropylbenzene

4) What is the ratio of Benzene and propylene for Cumene production?

1 point

- 1:2
 1:1
 2:1
 1:3

No, the answer is incorrect.
Score: 0

Accepted Answers:
2:1

5) The neutralization of benzene sulphonic acid with sodium sulphite results

1 point

- Sodium sulfate
 Sodium sulfite
 Sodium phenate
 Sodium hydroxide

No, the answer is incorrect.
Score: 0

Accepted Answers:
Sodium phenate

6) Sulfonation of benzene is a _____ reaction.

1 point

- Reversible
 Irreversible
 Exothermic
 Endothermic

No, the answer is incorrect.
Score: 0

Accepted Answers:
Reversible

7) Recovery of sodium sulphite in phenol production is achieved by

1 point

- Filtration
 Distillation
 Crystallization
 Extraction

No, the answer is incorrect.
Score: 0

Accepted Answers:
Crystallization

8) _____ is used to get phenol from crude phenol.

1 point

- Vacuum distillation
 Extraction
 Absorption
 Adsorption

No, the answer is incorrect.
Score: 0

Accepted Answers:
Vacuum distillation

9) To produce benzene sulfonic acid from benzene, _____

1 point

- Sulfuric acid
 Fuming sulfuric acid
 Sulfur trioxide
 Both b and c

No, the answer is incorrect.
Score: 0

Accepted Answers:
Both b and c

10) Reaction temperature for Cumene production is

1 point

- 243 °C
 245 °C
 350 °C
 300 °C

No, the answer is incorrect.
Score: 0

Accepted Answers:
350 °C