

Programme: B.TECH CHEMICAL ENGG (VIIIthSem.)

Course Name: Operation Research

Course Code: ECHE-481

Assignment No: 2

Due date of submission: 20/4/2018

Instructions

Write the responses to the assignment in your own handwriting.

1. **Write the response to the assignment in your own handwriting.**
2. Submit the responses to your HoD within the due date.
3. Write your Name, Programme and Enrollment No. clearly at the top of page.

Q.1

a) As we have discussed about the **OR** in the class session, now, try to define OR and their scope in your words with the help of an example.

b) As we have discussed about the Game theory in the class session, now, try to define game theory in your words with an example and explain Sum of Gains and Losses with the help of an example.

Q.2

a) As you are aware of Strategies of Game Theory, define it in your words and compare pure and mixed strategy of game theory with an example.

b) What do you understand by Two Person Zero-Sum Games and Saddle point in game theory? Explain it with the help of real life examples and find the Saddle point of the given Pay off matrix

$$\begin{bmatrix} -3 & -2 & 6 \\ 2 & 0 & 2 \\ 5 & -2 & -4 \end{bmatrix}.$$

Assignment-2

Program Name – B.TECH (Chemical Engg)

Semester: 8

Course Name- Advanced Separation Technology

Last date of submission-20/4/2018

Course Code- ECHE-482

Instructions: 1. Write the response to the assignment in your own handwriting. 2. Submit the response to your HOD within the due date. 3. Write your Name, Programme, and Enrolment no. clearly at the top of the page.

Q.1

- (a). Explain ideal cascades and dialysis.
- (b). Explain electro dialysis and ultra filtration.

Q.2

- (a). Explain chromatographic separation with neat and clean diagram.
- (b). Describe molecular sieve separations technique and explain use and characterization of separation processes.

Assignment-2

Program Name – B.TECH (Chemical Engg)

Semester: 8

Course Name- Transport Phenomena

Last date of submission-20/4/2018

Course Code- ECHE-483

Instructions: 1. Write the response to the assignment in your own handwriting.

2. Submit the response to your HOD within the due date.

3. Write your Name, Programme, and Enrolment no. clearly at the top of the page.

Q.1 (a) Explain phenomena similarity between momentum, heat and mass transfer.

(b) Discuss basic laws of fluid motion, Newton's second law of motion, and principle of balance between momentums.

Q.2 (a): Explain Principles of conservation of momentum, mass and energy.

b) .Explain Newton's law of viscosity, science of rheology and prediction of viscosity.

Assignment-2

Program Name – B.TECH (Chemical Engg)

Semester: 8

Course Name- Petroleum Refining Technology

Last date of submission-20/4/2018

Course Code- ECHE-484

Instructions: 1. Write the response to the assignment in your own handwriting.

2. Submit the response to your HOD within the due date.

3. Write your Name, Programme, and Enrolment no. clearly at the top of the page.

Q.1

- (a). Write composition, properties & specification of LPG?
- (b) . What is Delayed Coking? Discuss Lube Oil Manufacturing Process?

Q.2

- (a). Explain composition, properties & specification of lubricating oil?
- (b). Explain conventional visbreaking with proper diagram. Describe Conradson method and Ramsbottom method.