

ASSIGNMENT NO:2
B.TECH (CHEMICAL ENGG), 5TH SEM

B.TECH (CHEMICAL ENGG), 5TH SEM , Computer based Numerical Methods, ECHE-351

Assignment No: 2

Due date of submission: 10.11.2016

Instructions

1. Write the responses 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) Solve the following equations by Jacobi method.

$$27x + 6y + z = 85$$

$$6x - 15y + 2z = 72$$

$$x + y + 54z = 110$$

- b) Difference between Jacobi method and Gauss seidel method.

Q.2

- a) Use the LU decomposition method to solve the following linear equations.

$$2x + y + z = 2$$

$$x + 3y + 2z = 2$$

$$3x + y + 2z = 2$$

- b) Explain Taylor's method and RungeKutta method.

COURSE: B.TECH (CHEMICAL ENGG), 5TH SEM, MASS TRANSFER OPERATIONS-I, ECHE-352

ASSIGNMENT NO:2

Due date of submission: 10.11.2016

Instructions

1. Write the response to the assignment in your own handwriting.
2. Submit the response to your HOD within the due dates
3. Write your name, programmed and enrolment No. clearly at top of the page.

Q.1)

- a) What is humid heat? What is humid volume?
- b) Explain diffusion coefficient in gas, liquid and solid.

Q.2)

- a) Explain theories of mass transfer.
- b) Derive the expression of molecular diffusion of A through non diffusing B in liquids

COURSE: B.TECH (CHEMICAL ENGG), 5TH SEM, CHEMICAL REACTION ENGG.-II, ECHE-353

ASSIGNMENT NO:2

Due date of submission: 10.11.2016

Instructions

1. Write the response to the assignment in your own handwriting.
2. Submit the response to your HOD within the due dates
3. Write your name, programmed and enrolment No. clearly at top of the page.

Q1)

- a) What is dispersion number? Define activity of a catalyst pellet.
- b) What effectiveness factor and expansion factor.

Q.2)

- a) What is equilibrium constant? What fractional conversion of reactant A, X_A .
- b) Define recycle ratio and what is space time?

COURSE: B.TECH (CHEMICAL ENGG), 5TH SEM, PROCESS INSTRUMENTATION, ECHE-355

ASSIGNMENT NO:2

Due date of submission: 10.11.2016

Instructions

1. Write the response to the assignment in your own handwriting.
2. Submit the response to your HOD within the due dates
3. Write your name, programmed and enrolment No. clearly at top of the page.

Q1)

- A) Define viscometer. Define manometer.
- B) Give detail about Mclead gauge manometer.

Q.2)

- a) What is importance of instrument in chemical process industry?
- b) Explain dynamic characteristic of instruments.

COURSE: B.TECH (CHEMICAL ENGG), 5TH SEM, **CHEMICAL TECHNOLOGY-II, ECHE-354**

ASSIGNMENT NO:2

Due date of submission: 10.11.2016

Instructions

1. Write the response to the assignment in your own handwriting.
2. Submit the response to your HOD within the due dates
3. Write your name, programmed and enrolment No. clearly at top of the page.

Q.1)

- A) Write the reaction to produce phosphorous. Write the full form of SSP and TSP.
- B) Write name of three mixed fertilizers. What is Syn gas? How they are produced?

Q.2)

- a) Write the method for the production of Bleaching Powder.
- B) Write the reaction to produce Hydrochloric acid.