

**ASSIGNMENT NO:1,  
DIPLOMA (CHEMICAL ENGG) , V SEM**

**PROGRAMME: DIPLOMA (CHEMICAL ENGG) , V SEM ,  
CHEMICAL REACTION ENGG, DCHE-353**

**ASSIGNMENT NO:1**

**Due date of submission: 11.09.2017**

**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, programme and enrolment No. clearly at top of the page.**

Q1)

- a) Define activation energy and what is batch reactor?
- b) What is relation between concentration and fractional conversion of any reactant A.?

Q.2)

- a) Define rate constant and Define rate law of a reaction.
- b) Define space time, space velocity and Holding time.

**PROGRAMME: DIPLOMA (CHEMICAL ENGG) , V SEM ,**

**MASS TRANSFER OPERATIONS,DCHE-352**

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Q.1

- a) Define flooding, Humidity and percentage humidity.
- b) Write short note on H.T.U. and H.E.T.P.

Q.2

- a) Define Relative humidity, humid volume and channeling.
- b) Explain drying process.

**PROGRAMME: DIPLOMA (CHEMICAL ENGG), V<sup>th</sup> SEM,  
FUEL AND MATERIAL TECHNOLOGY, DCHE-351**

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Q.1

- a) Write short note on Natural Gas, LPG and Viscosity.
- b) Define Flash & fire Point and Octane no.

Q.2

- a) Write down Advantages and disadvantages of gaseous fuels.
- b) What is disadvantage of corrosion? Define tarnishing and fogging.

**PROGRAMME: DIPLOMA (CHEMICAL ENGG) , V SEM ,  
AUTOMATIC PROCESS CONTROL, DCHE-354**

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Q.1

- a. Define automatic process control and application of control system
- b. Define step function, sinusoidal function and unit function.

Q.2

- a. Differentiate between feedback and feed forward control system.
- b. Explain first order control system.