Scheme – I

Sample Question Paper

Program Name : **Diploma in Chemical Engineering**
Program Code : **CH**
Semester : **Fourth**
Course Title : **Technology of Organic Chemicals**
Marks : **70**

22410

Time: 3 Hrs.

Instructions:

(1) All questions are compulsory.

(2) Illustrate your answers with neat sketches wherever necessary.

(3) Figures to the right indicate full marks.

(4) Assume suitable data if necessary.

(5) Preferably, write the answers in sequential order.

Q.1) Attempt any FIVE of the following. **10 Marks**

a. List any four industrial applications of ethanol.

b. Write the reaction involved in manufacturing of acetaldehyde.

c. Define iodine value of oil.

d. Write the names of raw materials used for manufacturing of polyester.

e. List any four sources for manufacturing of pulp.

f. List any four industrial applications of poly vinyl chlorides.

g. Write the reaction involved in manufacturing of phenol by toluene.

Q.2) Attempt any THREE of the following. **12 Marks**

a. Describe the roles of constituents used in paint.

b. Draw PFD for manufacturing for polyethylene.

c. Write any four properties of phenol and list its any four industrial applications.

d. Describe the need of edible oil refining process.

Q.3) Attempt any THREE of the following. **12 Marks**

a. Draw PFD for manufacturing for ethanol from molasses.

b. Explain manufacturing of soap from oil.

c. Differentiate between varnish and lacquers.

d. Explain manufacturing of paper from pulp with moisture range in different drying rolls.

Q.4) Attempt any THREE of the following. 12 Marks

a. Differentiate between soap and detergent.
b. Draw process block diagram for manufacturing of paint.
c. Write reaction involved in manufacturing of polyester.
d. Describe the process for manufacturing of phenol by toluene
e. Draw process flow diagram for manufacturing of phenol by Raschig process.

Q.5) Attempt any TWO of the following. 12 Marks

a. Describe manufacturing process of pulp by Kraft process with neat flow diagram.
b. Explain manufacturing process of butanol with neat process flow diagram.
c. Describe addition and condensation polymerisation with examples. Explain manufacturing of polyethylene

Q.6) Attempt any TWO of the following. 12 Marks

a. List industrial applications of acetaldehyde. Explain its process with neat flow diagram.
b. Describe manufacturing of vinyl chloride monomer with neat flow diagram.
c. Explain manufacturing process of phenol by cumene peroxidation with neat flow diagram.

Scheme - I

Sample Test Paper - I

Program Name : **Diploma in Chemical Engineering**
Program Code : **CH**
Semester : **Fourth**
Course Title : **Technology of Organic Chemicals**
Marks : **20**

22410

Time: 1 Hour

Instructions:

(1) All questions are compulsory.

(2) Illustrate your answers with neat sketches wherever necessary.

(3) Figures to the right indicate full marks.

(4) Assume suitable data if necessary.

(5) Preferably, write the answers in sequential order.

Q.1 Attempt any FOUR. **08 Marks**

a. List the four industrial uses of ethanol
b. Write raw material used for manufacturing of soap.
c. List industrial uses of ethyl acetate
d. Name the catalyst used for hydrogenation of oil.
e. Name the pigments used to give black and white colour in paint.
f. Write the reaction involved in manufacturing of butanol.

Q.2 Attempt any THREE. **12 Marks**

a. Draw process flow diagram for manufacturing of ethanol from molasses.
b. Explain manufacturing of ethyl acetate with reaction.
c. Describe the role of any four constituents of pain.
d. Differentiate between soap and detergent.
e. Explain hydrogenation of oil.

Scheme - I

Sample Test Paper - II

Program Name : **Diploma in Chemical Engineering**
Program Code : **CH**
Semester : **Fourth**
Course Title : **Technology of Organic Chemicals**
Marks : **20**

22410

Time: 1 Hour

Instructions:

(1) All questions are compulsory.

(2) Illustrate your answers with neat sketches wherever necessary.

(3) Figures to the right indicate full marks.

(4) Assume suitable data if necessary.

(5) Preferably, write the answers in sequential order.

Q.1 Attempt any FOUR. **08 Marks**

a. List any four industrial uses of polyvinyl chloride.

b. Write reaction involved in manufacturing of phenol by cumene peroxidation.

c. Name any four raw materials used for manufacturing of pulp.

d. Define addition polymerisation.

e. Write any two important properties of phenol.

f. Write name of processes used for manufacturing of pulp.

Q.2 Attempt any THREE. **12 Marks**

a. Draw process flow diagram for manufacturing of vinyl chloride.

b. Describe manufacturing of paper with mentioning moisture content in drying rolls.

c. Describe manufacturing of polyethylene by high pressure process.

d. Write the reaction involved in manufacturing of polyester.

e. Draw process flow diagram for manufacturing of phenol by Raschig process.