

Scheme - I

Sample Question Paper

Program Name : Diploma in Chemical Engineering
Program Code : CH
Semester : Fifth
Course Title : Environmental Pollution and Control
Marks : 70

22511

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. Define Ecology.
- b. Write names of two gases causing global warming.
- c. List any four equipment used for the control of particulate pollutants.
- d. List any four pollutants emitted from sulfuric acid plant.
- e. Define BOD.
- f. List any four sources of water pollution
- g. Write two functions of pollution control board.

Q.2) Attempt any THREE of the following.

12 Marks

- a. Explain structure of aquatic ecosystem with neat sketch.
- b. Describe effect of carbon monoxide and sulfur oxides on human health.
- c. Characterize municipal solid waste.
- d. Write any four salient feature of Air (Prevention and control of Pollution) act 1981.

Q.3) Attempt any THREE of the following.

12 Marks

- a. Draw neat sketch of electrostatic precipitator
- b. Explain 3R principle in context with solid waste management.
- c. Explain the application of sedimentation in waste water treatment.
- d. List out the types of air pollutants with example.

Q.4) Attempt any THREE of the following.

12 Marks

- a. Explain carbon cycle with neat sketch.
- b. Write any one method to recover energy from waste.
- c. Describe Love Canal Tragedy and lessons learned from it.
- d. Explain reverse osmosis process used in waste water treatment.
- e. List any eight benefits of ISO14000

Q.5) Attempt any TWO of the following.

12 Marks

- a. Explain construction and working of bag filter.
- b. With neat sketch describe sanitary landfill method.
- c. Draw diagram of trickling filter and list any four advantages.

Q.6) Attempt any TWO of the following.

12 Marks

- a. Explain for marine ecosystem –
 - i) Food chain
 - ii) Food web
- b. Write working principle of cyclone separator and draw its neat diagram.
- c. Explain activated sludge treatment with diagram.

Scheme - I

Sample Test Paper - I

Program Name : Diploma in Chemical Engineering
Program Code : CH
Semester : Fifth
Course Title : Environmental Pollution and Control
Marks : 20

22511

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 particulate pollutants
- b. List any four water pollutants.
- c. Define biotic and abiotic components.
- d. Write any four examples of terrestrial ecosystem.
- e. Write names of manmade and natural sources of air pollutants.
- f. Name any four gases causing global warming.

Q.2 Attempt any THREE.

12 Marks

- a. Explain carbon cycle.
- b. Explain concept of food chain and food web.
- c. Write effect of carbon monoxide and nitrogen oxide on human health.
- d. Draw neat sketch of bag filter. List its two advantages.
- e. Define BOD and COD.
- f. Draw a neat diagram of electrostatic precipitator.

Scheme - I

Sample Test Paper - II

Program Name : Diploma in Chemical Engineering
Program Code : CH
Semester : Fifth
Course Title : Environmental Pollution and Control
Marks : 20

22511

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 four business benefits of ISO 14000
- b. List four primary treatment methods.
- c. Write significance of BOD in waste water treatment
- d. List four pollution control acts in India.
- e. Write any four characteristics of MSW.
- f. Write sources of hazardous waste.

Q.2 Attempt any THREE.

12 Marks

- a. Draw neat sketch of trickling filter.
- b. Explain sludge thickening with a suitable diagram.
- c. Explain 3 R principle of solid waste management.
- d. State the role of state pollution control board in prevention of pollution.
- e. List the various tanks in activated sludge treatment method and write their uses.
- f. Write working principle of membrane separation technology for waste water treatment.