

**Assignment-II**  
**Programme: - B.TECH Civil -7<sup>TH</sup> Semester**  
**Course: - Design of Steel Structure**  
**Course Code: ECE-472**  
**Last Date of Submission:-23.10.2017**

**Q.1**

- a) Discuss the main objectives of a designer for designing of a steel structure.
- b) Discuss the following-
  - i) Prying action
  - ii) Comparison of welded joints with the bolted joints.

**Q.2**

- a) Explain the following-
  - i) Local and lateral buckling of beam.
  - ii) Checks required for beam design.
- b) What are the partial safety factor for materials adopted by IS:800-2007 Code?

**Assignment-II**  
**Programme: - B.TECH Civil -7<sup>TH</sup> Semester**  
**Course: - Open Channel Flow**  
**Course Code: ECE-473**  
**Last Date of Submission:-23.10.2017**

Instructions:

1. Write the assignment in your own handwriting.
2. Submit assignment to your HOD within given time.
3. Write your name, program and enrolment number clearly at the top of the pages.

Q.1

- a) What are the differences between OCF and pipe flow?
- b) Write a short note on :
  - i) Specific energy
  - ii) Critical depth
  - iii) Compound channel

Q.2

- a) Write the assumptions of GVF. Also derive the dynamic equation of GVF.
- b) Define hydraulic jump. What are the uses of hydraulic jump?

**Assignment-II**  
**Programme: - B.TECH Civil -7<sup>TH</sup> Semester**  
**Course: - Water Resources Engineering**  
**Course Code:-ECE-474**  
**Last Date of Submission:-23.10.2017**

Instructions:

1. Write the assignment in your own handwriting.
2. Submit assignment to your HOD within given time.
3. Write your name, program and enrolment number clearly at the top of the pages.

Q.1

- a) What is the purpose of canal system in India?
- b) Differentiate between Canal Irrigation & Well Irrigation.

Q.2

- a) What do you understand by Canal Head works?
- b) Write in detail about suitable site selection for a tube well.

**Assignment-II**  
**Programme: - B.TECH Civil -7<sup>TH</sup> Semester**  
**Course: - Industrial Pollution control and Environmental Audit**  
**Course Code:-ECE-475**  
**Last Date of Submission:-23.10.2017**

Q.1

- a) Describe the process responsible for deterioration in water quality.
- b) Write down the basic requirement of removal of biodegradable organics from industrial water.

Q.2

- a) Write down the methods of recycling of waste water for a sewage system.
- b) Explain the concept zero discharge effluents.