

FLUID MECHANICS AND HYDRAULICS

Assignment No: 2

Open Channel Flow

1. Describe in detail: Classification of open channel flow.
2. What is hydraulic mean depth? Derive expression of hydraulic mean depth for rectangular section, triangular section.
3. Derive an equation for most economical section for rectangular section, trapezoidal section.
4. Describe in detail: average shear stress for uniform flow.
5. Describe in detail: Specific energy diagram.
6. Describe in detail: 1. Critical depth, 2. Critical velocity, 3. Alternate depth.
7. Differentiate between pipe flow and open channel flow.

