

Total No of Questions : 8

Total No. of Printed Pages : 2

## **EIS-199**

**B.E. (VIth Sem.) (CGPA) Civil Engg. Exam.-2015**

### **FLUID MECHANICS - II**

**Paper - CE-601**

***Time Allowed : Three Hours***

***Maximum Marks : 60***

***Note :*** Attempt any 5 questions. All question carry equal marks.  $5 \times 12 \text{ marks} = 60$

- Q.I Write different types of draft tube and its theory.
- Q.II Explain Multistage Centrifugal pump.
- Q.III Describe Hydraulic accumulator.
- Q.IV Describe in brief.
- (i) Hydraulic Torque Controller
  - (ii) Air Lift Pump
  - (iii) Gear Wheel Pump
  - (iv) Hydraulic Lift



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- Q.V Find the velocity of flow and rate of flow of water through a rectangular channel of 6 m wide and 3 m deep when it is running full. The Channel & having bed stope as 1 in 2000. Take Chezy's const.  $C = 55$
- Q.VI What are the Conditions for Maximum Velocity for Circular Section.
- Q.VII A Centrifugal pump is to discharge  $0.118 \text{ m}^3/\text{s}$  at a speed of 1450 rpm against ahead of 25m. The impeller diameter is 250 mm. Its width at outlet is 50 mm and manometric efficiency is 75% Determine the vane angle at the outer periphery of the impeller.
- Q.VIII Define—Unit Head, Unit Discharge, Unit power, Specific Speed, Guide Vane, Scroll Casing, Shaft power, Runner power, Braking jet in case of turbine.