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3884

Reg. No. : .....

Name : .....

**IV Semester B.Tech. Degree Examination, July 2009**  
**Branch : Mechanical Engineering and Industrial**  
**Lab : FLUID MECHANICS AND MACHINES LAB**

Time : 3 Hours

Max. Marks : 100

Answer **one** question, as chosen by lot.

1. Conduct an experiment to calibrate the venturimeter and determine the coefficient of discharge.
2. Determine the coefficient of discharge of the given orificemeter by conducting an experiment in the lab.
3. Conduct an experiment to calibrate the given triangular notch and determine the coefficient of discharge.
4. Conduct an experiment to determine the coefficient of discharge of the given Rectangular notch.
5. Determine the coefficient of discharge and coefficient of velocity for flow through the given orifice.
6. Conduct an experiment to find the Darcy's coefficient and chezy's constants for the given pipe. Comment on your results.

P.T.O.



7. Test the performance of a given single stage centrifugal pump and plot the following performance curves :
- a) Head Vs Discharge      b) Overall efficiency Vs Discharge
  - c) Input power Vs Discharge
8. Test the performance of a given reciprocating pump and plot the following performance curves.
- a) Volumetric efficiency Vs Head      b) Overall efficiency Vs Head
  - c) Input power Vs Head      d) % Slip Vs Head
9. To find the operating characteristic curves of Pelton Wheel at constant speed and constant head and plot the following curves.
- a) Efficiency Vs Output power      b) Discharge Vs Output power
  - c) Input power Vs Output power
10. To conduct a load test on the Francis turbine at constant speed and plot the following curves :
- a) Efficiency Vs Output power      b) Discharge Vs Output power
  - c) Head Vs Output Power
11. Conduct an experiment to determine the meta-centric height and radius of gyration of the given floating body.
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