

# GUJARAT TECHNOLOGICAL UNIVERSITY

## Diploma in Mechanical Engineering

### Semester: 3

**Subject Code**

**Subject Name** FLUID MECHANICS AND HYDRAULIC MACHINES PRACTICE

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#### **LABORATORY EXPERIENCES:**

Sr.no.	Name of Experiment
1	Measure fluid flow by Venturimeter
2	Measure fluid flow by Orifice meter
3	Measure fluid flow by V Notch
4	Measure fluid flow by Nozzels
5	Verify Bernoulli's theorem.
6	Determine friction head losses through pipes.
7	Calculate work done and efficiency for impact of jet on flat and curved vanes.
8	Perform testing of Centrifugal pump as per BIS.
9	Perform testing of Reciprocating pump as per BIS.
10	Perform testing of Pelton wheel.
11	Find faults and remedies for Centrifugal pump. Prepare trouble shooting chart of Centrifugal pump.
12	Study and write a report on working of different types of water turbines.
13	Study and write a report on any one of hydraulic devices.
14	Study and write a report on any one of pneumatic devices.
15	Industrial visit and report

## **NOTES :**

1. Term work report content of each experience should also include following.
  - a. Experience description / data and objectives.
  - b. Skill/s which is / are expected to be developed in student after completion of experience.
  - c. Drawing of experience / setup with labels/nomenclature to carry out the experience
  - d. The specifications of machines / equipments / devices / tools / instruments /items/elements which is / are used to carry out and to check experience.
  - e. Process parameters / setup settings' values applied to carry out experience.
  - f. Steps / Process description to execute experience.
  - g. Observations
  - h. Information on recent machines / equipments / devices / tools / instruments /items available in market to carry out the experience.
  - i. Special / Additional notes or remarks.
2. Term work report of student of regular mode should exclude Distance Learning manual, photocopies , printed content, etc. Focus should be on developing the term work as original efforts of students.
3. Term work content of industrial visit report should also include following.
  - a. Brief details of industry visited.
  - b. Type ,location, products, rough layout, human resource, etc of industry.
  - c. Details, description and broad specifications of machineries/processes observed.
  - d. Safety norms and precautions observed.
  - e. Student's own observation on Industrial environment, culture and attitude.
  - f. Any other details / observations asked by accompanying faculty.
4. Term work also includes experience logbook duly certified by subject teachers.