



MEP 001

**III Semester B.Tech. (Mechanical) Examination, August 2011
FLUID MECHANICS AND MACHINERY LAB**

Time : 3 Hours

Max. Marks : 75

- Instructions :** 1) Answer *all* questions in Part – A and either (a) or (b) in Part – B.
2) Each question carries 5 marks in Part – A and 50 marks in Part – B.

PART – A

1. Explain the function of venturimeter.
2. Explain the calculation of the rate of flow using Rotameter.
3. Explain the characteristics of centrifugal pump.
4. Explain the working of Francis turbine.
5. Explain the characteristics of Pelton wheel.

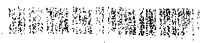
PART – B

6. a) Determination of the coefficient of discharge of given Orifice meter.

OR

- b) Conducting experiments and drawing the characteristic curves of gear pump.
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MARKS: 100



UNIT 1: THE SCIENCE OF MATERIALS (Mechanical) Examination Answer Sheet
PART A: THEORY AND PRACTICE

Max Marks: 75

Time: 3 Hours

Answer the following questions in Part A. All questions in Part A are compulsory. (5) in Part A. (1) Part B questions are in Part B. (5) and (10) marks in Part B.

PART - A

1. Explain the term 'stress'.
2. Explain the relation between stress and strain.
3. Explain the difference between ductile and brittle materials.
4. Explain the working of a simple machine.
5. Explain the difference between a pulley and a wheel and axle.

PART - B

- (a) The diagram shows a block of wood on a rough surface. Explain the forces acting on the block.
- (b) Describe an experiment to show that the force of friction depends on the nature of the surfaces in contact.