

III Semester Diploma (Automobile/Civil/Mechanical) Examination, August 2011 ENGINEERING MECHANICS LAB

Time: 3 Hours Max. Marks: 75

Instructions: 1) Answer **all** questions in Part - A and Part - B either (a) or (b) in Part - C.

2) Each question carries 1 (one) mark in Part – A and 5 (five) marks in Part – B and 50 (Fifty) Marks in Part – C.

PART - A

I. Answer all questions:

 $(5 \times 1 = 5)$

- 1) Define Hardness.
- 2) Define ductility.
- 3) What is the bending?
- 4) Define deflection.
- 5) Define impact load.

PART - B

II. Answer all questions:

 $(4 \times 5 = 20)$

- 6) State and explain Bernoulli's theorem.
- 7) Sketch and explain the impulse turbine.
- 8) Explain the performance characteristics of reciprocating pump.
- 9) Explain impact test on beams.

PART - C

III. Answer any one from each question:

 $(1 \times 50 = 50)$

10) a) Performance test on reaction turbine.

OR

b) Performance test on reciprocating pump.