Practical No. 01

Object: To measure height of equivalent liquid column.(pezometer)

APPARATUS:

THEORY

1.Introduction

In most of the experiments in this laboratory we will use a hydraulic bench to determine the flow rate of water through various sets of apparatus. The purpose of the present experiment is to gain some familiarity with the used of the hydraulic bench.

2. The hydraulic bench

The operationg principles of a hydraulic bench are very simple. It consists of the following

* A tank that contains reservoir of water.
* A small centrifugal pump to remove water from the tank and direct it to a piece of fluid apparatus.
* An on-off switch to start –stop the pump.
* A valve to control the rate at which water is pumped from the tank.
* An inlet in the top of the apparatus to collect water after it has been used.
* A water container immediately below the inlet in the top of the hydraulic bench. The water container also has valve in its base that can be opened or closed by handle set into the hydraulics bench.

**Procedure**

* Switch to the motor.
* Water starts lowing from channel to the tank. (Pictures)
* Water level rises in the tank and piezometer too.
* When water reaches to certain level we take 1st reading say 4inches n pizo meter.
* Note down waterlevel through stop watch after every 20sec,
* After completion of reading, drain water through drain valve.

Calculaition

|  |  |
| --- | --- |
| Time (sec) | Pressure head (inches) |
| 0 | 4 |
| 20 | 6.4 |
| 40 | 8.8 |
| 60 | 11.4 |