

## **Field CBR Test.**

### **Apparatus:**

A reaction load like a truck, tractor or truss is required for applying the load by means of a mechanical screw jack. The other equipment needed are 5 cm diameter loading plunger, extension rods, jacks, proving ring assembly, dial gauge, datum frame, annular surcharge plate 25 cm in diameter and 5 kg in weight, with a central hole and slot width 5.3 cm and two circular slotted weights of 10 kg and diameter about 25 cm with central hole and slot width of 5.3 cm.

### **Procedure:**

A circular area of about 30 cm in diameter is trimmed and leveled. Particular care should be taken at the center where the plunger is to be seated. The surcharge load of 15 kg is placed on this surface and the plunger is seated properly. The dial gauge to measure the penetration is attached to the plunger from an independent datum frame. A seating load of 4 kg is applied and the load and penetration dials are set to zero.

The load is applied to the plunger by means of the jack such that the rate of penetration is approximately 1.25 mm/minute. The load readings are noted for at penetrations 0.0, 0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 4.0, 5.0, 7.5, 10.0 and 12.5 mm. The load is released and moisture content specimen is taken from underneath the plunger.

### **Calculations:**

The load – penetration curve is plotted, and the CBR value is calculated as in the case of laboratory CBR.

**CBR Graph:**

