

By- Rajat Sir

USE CODE Y293 FOR MAX. DISCOUNT

Adda247

# Soil

By Rajat Singh

Day 05



By- Rajat Sir

USE CODE Y293 FOR MAX. DISCOUNT

Adda247

BILINGUAL

### RRB JE SPECIAL BATCH

Civil Engineering

TIER 1+ TIER 2

COMPLETE LIVE BATCH



Start Feb 13, 2023 9 AM to 11 PM

ADDA247 Application  
Gate & Engineering Exams

DISCOUNT CODE  
**Y293**

BILINGUAL

### SSC JE 2023 Foundation

Civil Engineering

नीव आपके सिलेक्शन का



Start Feb 13, 2023 9 AM to 11 PM

BILINGUAL

### Civil Engineering ka Mahapack

Live Class, Video Course  
Test Series, Ebooks

At 4324 Only

BILINGUAL

### ELECTRICAL & ELECTRONICS ENGINEERING ka Mahapack

Live Class, Video Course  
Test Series, Ebooks

At 3874 Only

BILINGUAL

### Mechanical Engineering ka Mahapack

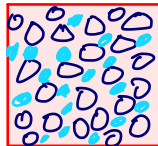
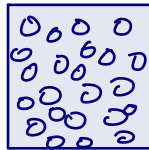
Live Class, Video Course  
Test Series, Ebooks

At 4324 Only

Method to find water content1) oven drying method

$$w = \frac{w_w}{w_s}$$

$$w = \frac{w_1 - w_2}{w_2} \times 100$$

Lab method → $w_1$  $w_2 = w_s$ wt. of water =  $w_1 - w_2$

## Method to find water content

oven drying method

Inorganic soil

→ Temp.

105° - 110°

↳ sand

→ 4 hr

↳ silt

→ 12-16 hr

24 hr ✓organic soil →Temp. 60°C

in order to avoid the oxidation of organic compounds. ✓✓

## Method to find water content

Soil having high gypsum content  $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$

✓  $80^\circ\text{C}$

## Method to find water content

✓ sand Bath method →

Rapid method → less accurate

\* NO control over temp.

\* organic soil → NOT suitable

\* gypsum cont. → NOT suitable

## Method to find water content

✓ Alcohol method → ✓

Methylated spirit → rate of evaporation ↑ (increased)

(organic soil → not suitable  
& soil having gypsum.)

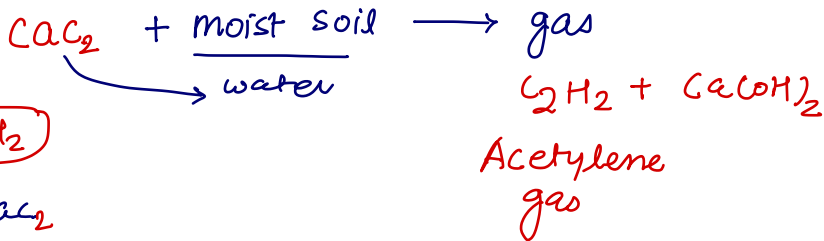
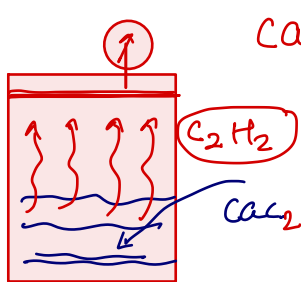
Alcohol → oxidising agent

## Calcium Carbide method →

\* quickest method 5-7 min (less Accurate)

\* Moisture Tester is used in this method.

Also known as Rapid moisture Tester method

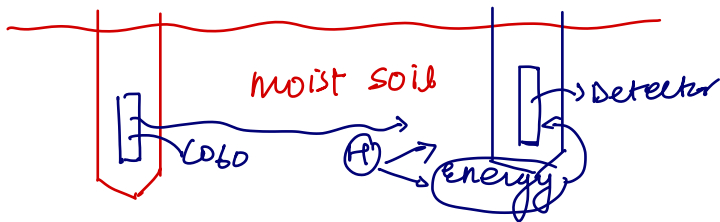




Radiation method :-

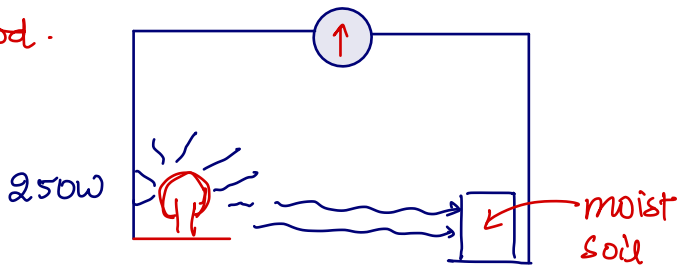
Field method

used in large Area



## Infrared Torsion Balance method

Lab method.



\*

Decrease in Torque  $\propto$  water content