



# **SNS COLLEGE OF TECHNOLOGY**

**Coimbatore-35**  
**An Autonomous Institution**



Accredited by NBA – AICTE and Accredited by NAAC – UGC with 'A+' Grade  
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

## **DEPARTMENT OF CIVIL ENGINEERING**

### **16CEE304 – CONCRETE TECHNOLOGY**

III YEAR VI SEM

#### **UNIT 2 – MIX DESIGN**

#### **TOPIC – BATCHING OF INGREDIENTS**

# Batching of concrete

## ➤ Batching of Aggregate

I. Volume batching

II. Weigh batching

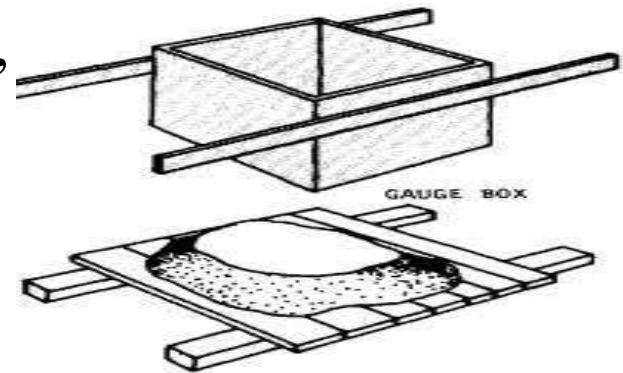
## ➤ Volume batching

- ✓ This method is generally adopted for small jobs .
- ✓ Gauge boxes are used for measuring the fine and coarse aggregate.
- ✓ The volume of gauge box is equal to the volume of one bag of cement.



# Volume Batching

- Gauge boxes are also called as FARMAS
- They can be made of timbers or steel.
- They are made generally deep and narrow
- Bottomless gauge boxes are generally avoided.
- While filling the gauge boxes the material should be filled loosely, allowed.



# Weigh Batching

- Batching by weight is more preferable to volume batching ,as it is more accurate and leads to more uniform proportioning.
- It does not have uncertainties associated with bulking.
- It's equipments falls into 3 general categories:
  - I. Manual,
  - II. Semi automatic,
  - III. Fully automatic.

## Manual batching:

- 1) All weighing and batching of concrete are done manually.
- 2) It is used for small jobs.



# Semi automatic batching

- 1) the aggregate bin gates are opened by manually operated switches.
- 2) And gates are closed automatically when the material has been delivered.
- 3) This system also contains interlock which prevents charging and discharging.



## Automatic batching

- 1) The materials are electrically activated by a single switch and complete auto-graphic record were made of the weight of each material.
- 2) The batching plant comprises 2,3,4 or 6 compartment bins of several capacities over the conveyer belt.
- 3) The weigh batchers discharging are provided below the bins.

