



SNS COLLEGE OF TECHNOLOGY



AN AUTONOMOUS INSTITUTION

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COIMBATORE**

DEPARTMENT OF CIVIL ENGINEERING

16GE302 - ENGINEERING ECONOMICS AND COST ANALYSIS

IV YEAR / VII SEMESTER

Unit 1 : Civil Engineering Materials and Surveying

Topic 3 : Stones



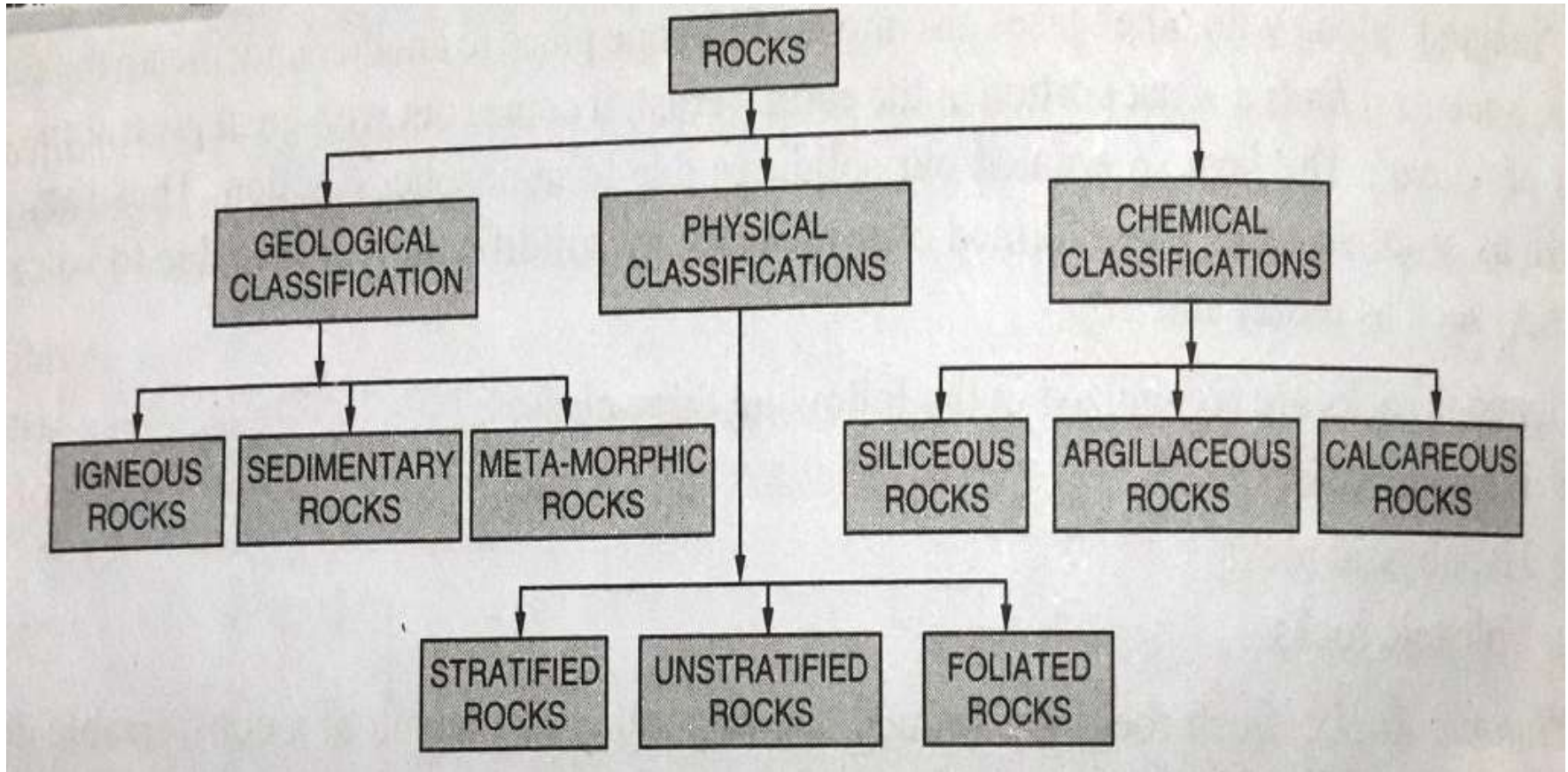
Stone - Introduction

The stones are derived from rocks which form the earth crust and hence have no definite shape and chemical composition.





Classification Of Rocks





Stones and their types

Igneous Rocks



basalt



gabbro



granite



obsidian



pumice

Sedimentary Rocks



breccia



conglomerate



limestone



sandstone



shale

Metamorphic Rocks



gneiss



marble



metaquartzite



schist



slate



Stones



1. QUARRYING

Process of extracting the stone blocks from Rocks. Quarrying of soft & hard rocks is done by following methods

1. Digging , Heating
2. Blasting

2. DRESSING

Process of cutting the stones to a regular shapes and size and the required surface finish.

- | | |
|-----------------------|-------------------|
| 1. Suitable size | 2. Regular Shape |
| 3. particular purpose | 4. Proper Bedding |



Uses of Stones

- Broken stones and chips are used for foundation, roofs, and floors of the building and as road metal and railway ballast.
- Stones blocks are mainly used in walls, foundation, and ornamental facial work.
- Quartzite is used for rubble masonry, road metalling and also as aggregate for concrete.
- Limestone slabs are used for flooring, paving, and roofing.
- Slates are used as roofing and flooring material.
- Granite is used for important works like bridge abutments, piers etc.
- Marble is extremely suitable for the ornamental and superior type of building work.
- Crushed stone is used as an alternative substitute for artificial sand.
- Insulators in electrical appliances.
- Good and durable construction material.



Properties of Stone

1. Structure
2. Appearance
3. Hardness & Toughness
4. Weight
5. Compressive strength
6. Ease of working
7. Porosity
8. Water Absorption
9. Durability
10. Weathering
11. Acid Resistant
12. Fire Resistant



Types of Stones

- Granite
- Chalk
- Limestone
- Sandstone
- Laterite
- Gneiss
- Marble
- Gravel
- Slate
- Quartzite



Assessment



- **Classification of stone with examples**

- **Recall the properties of stones**



Thank You!!