SNS COLLEGE OF TECHNOLOGY

Coimbatore-35
An Autonomous Institution

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Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

DEPARTMENT OF CIVIL ENGINEERING

19CEB301- SOIL MECHANICS

III YEAR V SEM

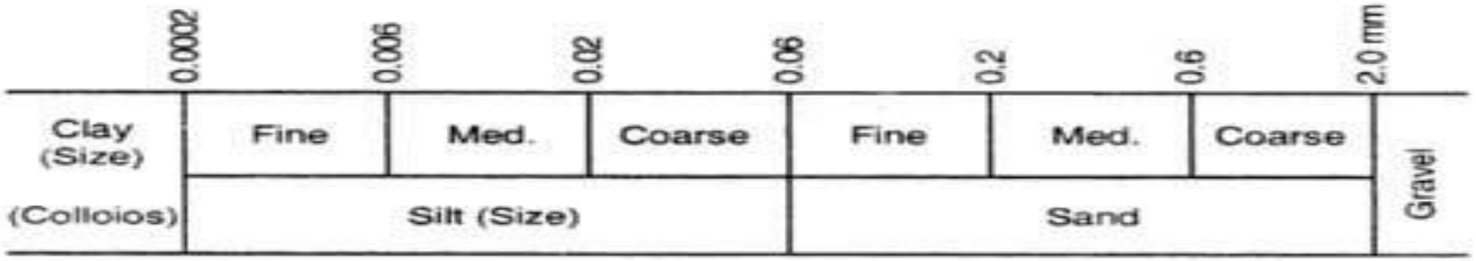
UNIT 1 – INTRODUCTION

Topic 5 : SOIL CLASSIFICATION

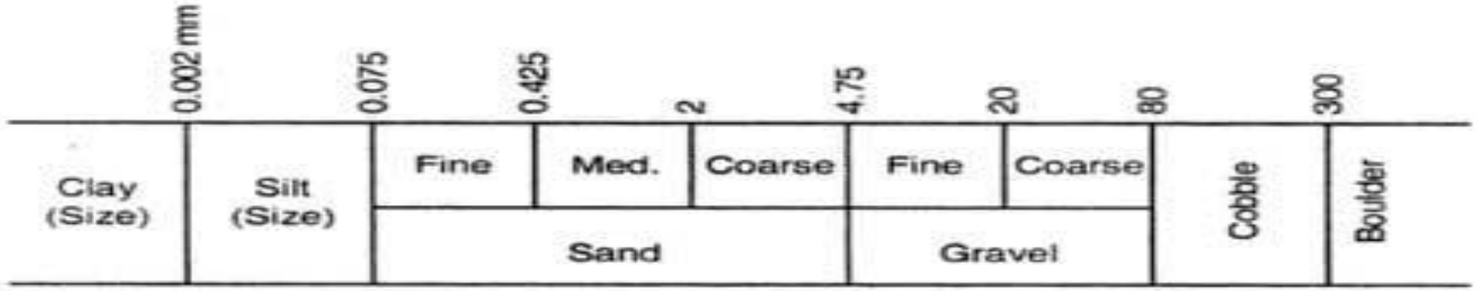
CLASSIFICATION OF SOILS

SOIL	GROUP SYMBOL	TYPICAL NAMES
Gravel	GW	Well graded Gravel
	GP	Poorly graded Gravel
	GM	Silty Gravel
	GC	Clayey Gravel
Sand	SW	Well graded Sand
	SP	Poorly graded Sand
	SM	Silty Sand
	SC	Clayey Sand
Silt	ML	Low Plastic Silt
	MH	High Plastic Silt
Clay	CL	Low Plastic Clay
	CH	High Plastic Clay
Organic Clay	OL	Low Plastic Organic Clay
	OH	High Plastic Organic Clay

IS CLASSIFICATION SYSTEM



(c) M.I.T. Classification



(d) I.S. Classification (IS : 1498-1970)

GRAIN-SIZE CLASSIFICATION SCALES.

BASED ON LIQUID LIMIT

If the Point Plot

	Below A-Line	Above A-Line
WL <35%	ML or OL	CL
WL 35% to 50%	MI or OI	CI
WL > 50%	MH or OH	CH

ASSESSMENT

- Into how many types soil is classified as per IS Code ?
- When is dual classification adopted ?
- How will you classify soil based on liquid limit ?

REFERENCES

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- McCarthy D.F., “Essentials of Soil Mechanics and Foundations Basic Geotechniques”, Sixth Edition, Prentice-Hall, New Jersey, 2002
- Das, B.M, “Principles of Geotechnical Engineering”, (fifth edition), Thomas Books/ cole, 2002

THANK YOU