

# GUJARAT TECHNOLOGICAL UNIVERSITY

ME Civil (Construction Engineering & Management)

Advanced Construction Materials

SUBJECT CODE: 3711412

Type of Course: Elective

Prerequisite: NIL

## Teaching and Examination Scheme:

Teaching Scheme			Credits	Examination Marks				Total Marks
L	T	P		Theory Marks		Practical Marks		
			ESE	PA(M)	Viva	PA (I)		
3	0	2	4	70	30	30	20	150

## Contents:

Sr.No.	Topics	Hrs.	% Weightage
1	Introduction, Durability, Mechanical Properties, Deformational Behavior, Thermo Physical Properties Etc.	3	8
2	Classification, Specification, Properties, Tests As Per IS For Various Civil Engineering Materials	6	17
3	Walling Units, Binding Materials And Additives, Aggregates, Gypsum Products, Wood Base Products, Ferrous And Non-Ferrous Metal Products, Various Types Of Concretes And Concrete Additives And Admixtures	12	33
4	Repair Materials, Adhesives And Sealants	6	17
5	Recent Developments And Market Awareness Regarding Applications, Varieties, Sizes And Specification For Various Materials	9	25
	<b>Total</b>	<b>36</b>	<b>100</b>

## Reference Book(s):

1. D.N. Ghose, "Materials of Construction", Tata Mc Graw Hill.
2. Jackson N. Ed., "Civil Engineering Materials", ELBS, London.
3. S.Z. Haider, "Material of Construction", Oxford University Press.
4. BRE Digest, "Building Materials", the Construction Press, London.
5. CBRI, "Building Materials and Components", Tata Mc Graw Hill.