Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

ME - SEMESTER–2 (NEW)• EXAMINATION – SUMMER 2015

Subject Code: 2721401 **Date: 26/05/2015**
Subject Name: Advanced Civil Engineering Materials
Time: 02.30 PM to 05.00 PM **Total Marks: 70**
Instructions:

1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1	**(a)**	Discuss briefly the mechanical and physical properties of material.	**07**
	(b)	How do you see the importance of engineering materials for construction management? Support your answer with suitable examples.	**07**
Q.2	**(a)**	Write various advantages of fly ash bricks? Also compare the fly ash bricks with conventional bricks.	**07**
	(b)	Write short note on : (1)Super Plasticizer (2) Fiber Reinforced Concrete	**07**
		OR	
	(b)	Explain the Gypsum board wall construction and its advantages and disadvantages	**07**
Q.3	**(a)**	Explain : (1) High performance concrete (2) High strength Concrete	**07**
	(b)	Enlist various tests of cement and explain any two in detail.	**07**
		OR	
Q.3	**(a)**	Write Short note on : (1) Sound insulation material and its applications (2) Damp Prevention material and its applications	**07**
	(b)	Describe the role of the following : (1) Water Proofing admixture (2) Air entraining admixture	**07**
Q.4	**(a)**	What does RMC means? Explain various advantages of RMC with technical as well as construction management point of view.	**07**
	(b)	Describe the features and advantages of self-compacting concrete.	**07**
		OR	
Q.4	**(a)**	State various reasons of deterioration of concrete. Also enlist various measures to prevent such deterioration.	**07**
	(b)	Differentiate between ferrous and non-ferrous metals? Mention examples, properties and uses of each type.	**07**
Q.5	**(a)**	What is an Adhesive? Describe its advantages and disadvantages.	**07**
	(b)	Explain various types of Sealants. Also mention advantages and disadvantages of using sealants in construction industry	**07**
		OR	
Q.5	**(a)**	Enlist and explain various desirable advancement criteria desired for technical enrichment as well as for the construction management.	**07**
	(b)	Write Short note on : (1) Application of Aluminum in construction (2) Fiber Reinforced Plastic and its applications	**07**

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