Seat No.:	Enrolment No.
-----------	---------------

GUJARAT TECHNOLOGICAL UNIVERSITY ME - SEMESTER-2 (NEW)• EXAMINATION – SUMMER 2016

Date: 24/05/2016 Subject Code: 2721401 **Subject Name: Advanced Civil Engineering Materials Total Marks: 70** Time: 10.30 AM to 01.00 PM **Instructions:** 1. Attempt all questions. 2. Make suitable assumptions wherever necessary. 3. Figures to the right indicate full marks. 0.1 Enlist various advanced civil engineering material and explain their application 07 briefly. Discuss the factors affecting the selection of material for various civil **(b)** 07 engineering practices. **Q.2** Describe various physical and Mechanical properties of civil engineering 07 (a) materials. Enlist various tests of aggregate and explain about them in brief (b) 07 OR Enlist various tests carried out on Cement and explain about them in brief. 07 (b) 0.3 Describe about high performance concrete and its properties in detail. 07 (a) Write short notes on: 07 (b) (1) Fly Ash Brick (2) Walling Units OR Enlist and explain various destructive and non-destructive tests for concrete in Q.3 (a) 07 detail. Write short notes on: 07 (b) (1)Gypsum based product (2) Wood based product Discuss about FRP and enlist various applications of FRP in civil engineering. 0.4 (a) 07 Describe about sealant and its applications in civil engineering. 07 (b) **Q.4** (a) Discuss about heat insulating material and sound insulating materials used for 07 construction work. Enlist various Non-ferrous metals and explain any two in details. 07 (b) 0.5 Describe about self compacting concrete and its properties in detail. 07 (a) Discuss about current trend of researches carious out on various civil **07** (b) engineering materials with suitable example. OR **Q.5** (a) Write short notes on: 07 (1)Pumping of concrete (2) Reinforced Polymer **(b)** Enlist and explain various types of glues used. 07
