Sea	ıt No.:	Enrolment No.	
	M.F	GUJARAT TECHNOLOGICAL UNIVERSITY S. SEMESTER I (old course)—EXAMINATION (Remedial) — WINTER 2015	
	bject	code: 711303N Date: 10/12/20 Name: HIGHWAY MATERIALS AND CONSTRUCTION	15
Tin	ne: 10	:30 AM to 1:00 PM Total Marks: 70 tions:	
	1. 2.	Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	
Q.1	(a)	Discuss proctor test for compaction with need, sample preparation, procedure of testing and result criteria.	07
	(b)	What are the problems in road work in hilly area?	07
Q.2	(a) (b)	Explain surface drainage with need and construction procedure. Discuss use of Geotextile materials in road construction. OR	07 07
	(b)	Enlist the methods of soil stabilization. Explain soil cement stabilization technique in detail.	07
Q.3	(a) (b)	Write in brief: i. Types of aggregate ii. Types of bituminous materials Discuss bituminous mix design.	03 04 07
Q.3	(a) (b)	OR Explain flexible pavement construction method with sketch. Explain softening point test with aim, name of apparatus and procedure of test.	07 07
Q.4	(a) (b)	Write about soil properties and desired properties of aggregate. Explain rigid pavement construction method. OR	07 07
Q.4	(a) (b)	Explain specific gravity test on aggregate. Write in brief:	07
		i. What is consolidation?ii. What is Macadam construction?	03 04
Q.5	(a) (b)	Write about surfacing and surface treatment for highway construction. Write in brief:	07
		 i. Soil classification ii. Why and which admixtures are added in mix design OR 	03 04
Q.5	(a) (b)	Write comparison of rigid and flexible pavement. Write functions of subgrade and sub base course.	07 07
