

GUJARAT TECHNOLOGICAL UNIVERSITY**BE(MINOR) - SEMESTER-IV EXAMINATION – SUMMER 2023****Subject Code:114AC01****Date:14-08-2023****Subject Name:Contemporary Materials for Construction****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.
4. Simple and non-programmable scientific calculators are allowed.

		Marks
Q.1	(a) Give the difference between cementitious concrete and non-cementitious concrete.	03
	(b) Give the characteristics of non-Cementous concrete.	04
	(c) Define Non-Cementous Concrete. Explain materials used in Non-Cementous Concrete.	07
Q.2	(a) Explain difference between smart and intelligent materials.	03
	(b) Explain different types of intelligent materials.	04
	(c) Write short note on case studies showing the applications of smart and intelligent materials.	07
	OR	
	(c) Explain special features smart and intelligent materials.	07
Q.3	(a) Enlist types of plastics.	03
	(b) Explain Manufacturing process of plastic in detail.	04
	(c) Explain application of FRP.	07
	OR	
Q.3	(a) Enlist types of FRP.	03
	(b) Write a short note on Reinforced Polymers.	04
	(c) Explain types of plastics in detail.	07
Q.4	(a) Enlist the types of flooring & Explain in brief.	03
	(b) Explain use of non-weathering materials in detail.	04
	(c) Write short note on concrete admixture.	07
	OR	
Q.4	(a) Explain water proofing & List out material used for water proofing	03
	(b) Write short note on construction chemicals.	04
	(c) Give types of Façade materials and its applications.	07
Q.5	(a) Give the properties of aluminium.	03
	(b) Explain different types of Steel in detail.	04
	(c) Explain manufacturing process of metals.	07
	OR	
Q.5	(a) Give the advantages of aluminium.	03
	(b) Explain benefits and applications of alloy steel in advanced construction.	04
	(c) Explain types and application of coating of reinforcement.	07
