

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER– III(NEW) EXAMINATION – WINTER 2022****Subject Code:3130607****Date:22-02-2023****Subject Name:Building Construction Technology****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) What is foundation? Discuss the various functions of foundation.	03
	(b) Define the following terms.(1) Ultimate bearing capacity. (2) Net pressure intensity.	04
	(c) Describe in brief, various methods of boring for sub-soil exploration, explain any one in detail.	07
Q.2	(a) Describe in brief, the non-load bearing piles.	03
	(b) Draw a neat sketch showing components of double scaffolding.	04
	(c) Describe the procedure of pumping from well points for dewatering. What are its advantages.	07
OR		
Q.3	(c) Describe the fire-resisting properties of various materials.	07
	(a) Compare steel roof truss and timber roof truss.	03
	(b) Define : (1) Corbel (2) king closer (3) Jamb (4) Stretcher	04
(c) Describe with neat sketch “framed and Panelled door”	07	
OR		
Q.3	(a) Describe with neat sketch “Flying shore”.	03
	(b) Explain in brief “Green Building rating system”	04
	(c) Define cavity wall. Explain with neat sketch brick cavity wall.	07
Q.4	(a) Differentiate between “skylight window and Lantern window”	03
	(b) Discuss the various factors affecting the selection of flooring materials.	04
	(c) Explain in brief box-cassion. In which situation box- caisson are adopted?	07
OR		
Q.4	(a) Write short note on “quarter turn stair”	03
	(b) Write short note on “Rapid hardening cement.”	04
	(c) Enlist and explain different types of mortar used for plastering.	07
Q.5	(a) Explain various factors affecting choice of method of site exploration.	03
	(b) Enumerate advantages of 3D printing technology in building construction.	04
	(c) Write short note on” Terrazzo flooring”.	07
OR		
Q.5	(a) Enlist essential requirements of a good roof.	03
	(b) What are the points to be kept in view, while locating doors and windows?	04
	(c) Describe Green building concept and Architectural planning.	07