

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-V(NEW) EXAMINATION – SUMMER 2022****Subject Code:3151711****Date:02/06/2022****Subject Name:Building Automation****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 FAS? Briefly explain it.	03
	(b) Compare Home Automation Vs Building Automation.	04
	(c) Explain Building Management system in detail.	07
Q.2	(a) Explain the concept of Building Automation.	03
	(b) Which are the components of FAS?	04
	(c) Which are different types of smoke detectors? Explain any one in detail with diagram.	07
OR		
	(c) Explain FAS design procedure in brief. Also explain various fire standards.	07
Q.3	(a) Explain the term “access control” in brief.	03
	(b) Explain RFID enabled access control.	04
	(c) Explain Security systems in the context of building automation in detail	07
OR		
Q.3	(a) List out the components of CCTV.	03
	(b) Compare DAV Vs MAC .	04
	(c) Draw the architecture of CCTV and explain each part in detail.	07
Q.4	(a) Briefly explain “chiller” in HVAC.	03
	(b) Compare DVR and NVR in the context of CCTV.	04
	(c) What is HVAC? Explain the architecture of HVAC in detail.	07
OR		
Q.4	(a) Explain the term energy conservation.	03
	(b) List out various types of CCTV cameras.	04
	(c) What is AHU? How it is organized in HVAC? Also explain various controls in HVAC .	07
Q.5	(a) List out various methods of energy conservation in the context of building automation.	03
	(b) List out various types of cables used in CCTV systems.	04
	(c) What is ASHARE ? Explain various ASHRAE symbols.	07
OR		
Q.5	(a) What are the advantages of Integrated Building Management System?	03
	(b) Discuss various method of lighting control in smart buildings	04
	(c) Explain Green Building concept in detail. Also explain “LEED”	07
