GUJARAT TECHNOLOGICAL UNIVERSITY
M.ARCH – SEMESTER -3 • EXAMINATION –WINTER 2022

Subject Code:X36202   **Date: 21 Dec 2022**
Subject Name: ADVANCED TECHNOLOGIES
Time:02:30 PM TO 04:30 PM   **Total Marks: 40**
Instructions:
1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1	**(a)**	**Answer any four Objective Type Questions (2 Marks Each)**	**08**

    1. Which of the following material is used to make the concrete translucent _____.
      a. Sand b. Optical fibers c. Marble d. None

    2. Which of the following is used as parameter for air pollution?
      a. AQI b. AIQ c. ASI d. None

    3. Which of the following is a property of a smart material?
      a. Piezoelectric b. Thermochromic c. Shape memory d. All of the above

    4. Liquid Crystal Devices are used in which of the following _____.
      a. Windows b. Doors c. Ceilings d. Floors

    5. Veneer is made from _____
      a. Wood b. Bamboo c. Asbestos d. Glass

Q.2	**(a)**	What is indoor environmental quality? What are the common sources of indoor air contaminants?	**04**
	(b)	Define Smart Materials and its advantages.	**04**
		OR	
	(b)	Mention and explain any two types of smart materials.	**04**

Q.3	**(a)**	What are the types of Artificial Intelligence? Explain in detail.	**04**
	(b)	Write a short note on self-repairing cement.	**04**
		OR	
	(a)	Explain the different types of sensors used in Indoor Environment Monitoring.	**04**
	(b)	Explain how Virtual Reality has impacted interior architecture presentation.	**04**

Q.4	**(a)**	Discuss in detail about the environmental benefits of Green Roofs.	**04**
	(b)	What are the benefits of a building automation system?	**04**

Q.5	**(a)**	Write short note on disadvantages of smart devices.	**04**
	(b)	Write short note on advantages of smart devices.	**04**
		OR	
	(b)	Explain uses of smart glass in interior architecture.	**04**

****