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PAPER CODE	U124-373
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March 2024 (INSEM) EXAM
F.Y. B.TECH^{CS E} IOT_CSBT (SEMESTER - II)
COURSE NAME: SMART SENSORS
COURSE CODE: CI12233

(PATTERN 2023)

Time: [40 Min]

[Max. Marks: 20]

(*) Instructions to candidates:

- 1) Figures to the right indicate full marks.
- 2) Use of scientific calculator is allowed
- 3) Use suitable data wherever required
- 4) Solve any two sub questions from Question 1 and 2

Question No.	Question Description	Marks	CO mapped	Blooms Taxonomy Level
Q.1	a) Draw a block diagram illustrating the function and components of an actuator system	[5]	CO1	Understand
	b) Assess the effectiveness of different sensing principles	[5]	CO1	Analyze
	c) Explain the basic operation of sensors and describe their fundamental working mechanism.	[5]	CO1	Understand
Q2	a) How do smoke sensors operate, and what are the key principles underlying their ability to detect the presence of smoke particles in the environment?	[5]	CO2	Analyze
	b) Identify and describe the key factors that influence an RTD's ability to accurately measure temperature. Provide examples	[5]	CO2	Analyze
	c) Illustrate working of Stepper Motor with labeled diagram	[5]	CO2	Understand

