

K. J. Somaiya Institute of Technology, Sion, Mumbai-22
(Autonomous College Affiliated to University of Mumbai)

Nov – Dec 2025

(B. Tech) Program: Electronics & Telecommunication Scheme:III

Regular Examination:TY Semester: V

Course Code: EXDLC5042 and Course Name: Sensor Technology

Date of Exam: 28/11/25

Duration: 02.5 Hours

Max. Marks: 60

Instructions:

- (1) All questions are compulsory.
- (2) Draw neat diagrams wherever applicable.
- (3) Assume suitable data, if necessary.

Q. No.	Question	Max. Marks	CO	BT level
Q 1	Solve any two questions out of three: (05 marks each)	10		
a)	What are Criteria to choose a Sensor?		1	U
b)	Explain Data Acquisition system with different configuration.		4	U
c)	What is the ZigBee technology? Discuss briefly.		5	U
Q 2	Solve any two questions out of three: (05 marks each)	10		
a)	Explain classification of Transducers based on source of energy.		1	U
b)	Discuss multi-Channel Data Acquisition System.		4	U
c)	What is NFC? Explain modes of operation of NFC.		5	U
Q.3	Solve any two questions out of three. (10 marks each)	20		
a)	Write Short Note on: LVDT, Capacitive Sensor.		2	U
b)	What is MEMS sensing? What are the types of MEMS sensing and explain them.		3	U
c)	Explain Sensors in Ultrasound Imaging.		6	U
Q.4	Solve any two questions out of three. (10 marks each)	20		
a)	Explain Temperature sensors.		2	U
b)	Differentiate between active and passive micro valves.		3	U
c)	Discuss onboard monitoring system (OBMS) for automobile sensing system.		6	U
