

PARUL UNIVERSITY
FACULTY OF ENGINEERING & TECHNOLOGY
B.TECH MIDSEM EXAMINATION
3rd SEMESTER
ACY-2022-23 (ODD SEM)

Subject Name (Code): BE&ST (203104219)

Date: 09-08-2022

Time: 2:30 to 4:00 PM

Branch: CIVIL

Total Marks: 40

Sr. No.		Marks
Q.1	(A) One line Questions	05
	1. What is the full form of LVDT?	
	2. What do you mean by tactile sensor?	
	3. What do you mean by non-contact sensor?	
	4. What are the different types of seismic waves?	
	5. What is the full form of HYSD bars?	
	(B) Compulsory Questions	05
	1. Direction of restoring force in SHM is towards _____ position.	
	2. Strain is a _____ quantity.	
	3. _____ is an effect of earthquake.	
	4. Characteristic compressive strength of concrete is taken after _____ of curing.	
	a) 3 days b) 7 days c) 28 days d) 365 days	
	5. Wein bridge is used to measure	
	a) Resistance b) Capacitance c) Inductance d) Conductance	
Q.2	Attempt any four(Short Questions)	12
	(1) What types of sensors should be present in a hospital building?	
	(2) Draw a balanced Wheatstone Bridge circuit.	
	(3) Name three fundamental quantities and write their units.	
	(4) Name three derived quantities and write their units.	
	(5) What is absolute zero temperature?	
Q.3	Attempt any two	08
	(1) Enlist different types of sensors used in Civil Engineering Applications	
	(2) Draw the stress-strain curve of mild steel and identify the important points.	
	(3) Describe simple harmonic motion with suitable diagram.	
Q.4	(A) Write the working principle of LVDT with suitable diagram.	05
	(B) Explain different types of load cells with diagram.	05
	OR	
	(B) Describe the effects of earthquake.	05