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5	Date		7
8	Page		

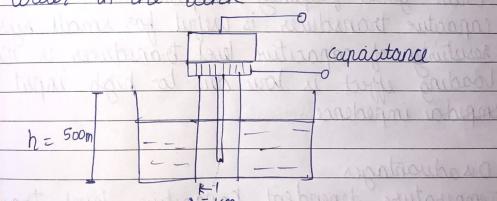
SA - Assignment -3

State of rank = radius = 1 cm 500um Some devel towns duces

C= A Ext. capacitance value depends ordielectric wed and of plate & distance between them

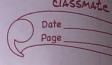
Level to current converted Level is rank change, capacitance of delectric formal below electrode & tank wall changes values of capacitance depends of on temperature of other tactors -> material of a) wall w electrode it is a

3) Output current gives measure of level of water in the tank



(2) Explain various transduces used for direct measurement of level. Explain one transducer in detail.

-> ulbrosonic level technology tronsduces. front element hyle-level transducer



	Caraint In I Transduces
->	canciative level transduces
~	Pressure level transducer
4	Toductive lovel transduces
4>	resistive level transduces
#	ustrasonic level Transduces work by the time of flight presume its a method work by the time of flight presume its a method toward to distance between liquid & object
-	11/20 P In the Aller
	burne by the time of flight presume its diquid & object between liquid & object beam towards the
>	bur measuring the distance between towards the It emits ultrasonic sord pulse beam towards the unit ultrasonic sord pulse bracklo was ultrionic united. Pulse is to neglected bracklo was ultrionic
	liquid Pulse is to neglicity nulse
->	The lime diff between transmission to distance is measured and caliberated to distance
Auto	is measured and cumulation
	1 + 1 of Congretive level Transducer
Q3)	State advantages of Capacitive level Transducer Requires less power to operate They and frequency response.
->	It has good frequency response.
→	It has good prefundy is useful for small system.
-)	capacitive buel transducer is high
->	residently of aquation to high input.
→ →	voading effect is road and
	It has good frequency response of capacitive transducer is useful for small system. I resistivity of capacitive level transducer is high loading effect is low due to high input tempedar impedence.
	Disadvantages Temperature dependent l'apacitive level trasduces
7	Non linear behavious
→	output impedance depends upon frequency
7	used the displacement of the second of the s
->	Prone to errors due to dust particles
	whisper medantat last measure le
	I Don't demont have love transduces

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RF Dource is used with capacitive level Capacitance is formed between the level receiving probe & metallic wall of the level which gets as 2 elictrodes & application mellia acts ac dielectric. when sensor a is introduced into the verse these electrodes are seperated by insulator by suitable media Dielectric is main factor in capacitance principle Positive change triuldup C= SUNA Versal wall divitrie medium sensing rod