

ANJUMAN-I-ISLAM'S

KALSEKAR TECHNICAL CAMPUS, NEW PANVEL School of Engineering & Technology

- Designation of the last of t	School of Engineering & Technology	
	DEPARTMENT OF MECHANICAL ENGINEERING	
CLAS	- TE ME - 1 SEM:- V	-
SUBJECT:- MMC DATE:- / 09 / 20		/ 2016
DUR	ION:- 60 min. MARKS:- 20	
CL	SS TEST 01	
	ttempt any two: (08 Marks)	
a)	Explain types of control system in detail	(04)
b)	Derive an expression for coupled tank Fluidic system	(04)
c)	Elucidate s-plane concept in detail	(04)
	ttempt any two: (12 Marks)	1 4 - 2
a)	Derive differential equation for given mechanical system	(06)
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	M3/3/1917	
	B	
	111111111111111111111111111111111111111	
b)	Find the transfer function for given state space representation	(06)
	[7 [2 2] [2 7]	
	$\left \begin{array}{c} 1 \\ 1 \end{array} \right = \left \begin{array}{c} 2 \\ 2 \end{array} \right \left \begin{array}{c} 2 \\ 4 \end{array} \right \left \begin{array}{c} 1 \\ 4 \end{array} \right \left \begin{array}{c} 1 \\ 4 \end{array} \right $	
	X2 [- 0] [2n] []	
	\mathcal{A}	
	$y = \begin{bmatrix} 1 & 0 \end{bmatrix} \begin{bmatrix} 24 \\ 2L \end{bmatrix}$	
	9 = 100	
c)	Sketch the Root Locus and comment on stability	(06)
14	VCC-027	
	KCS+3)	
	$G(S) = \overline{S(S^2 + 5S + 8)}$	