

EE 409 MID TERM #2

4/15/10

CLOSED BOOKS AND NOTES

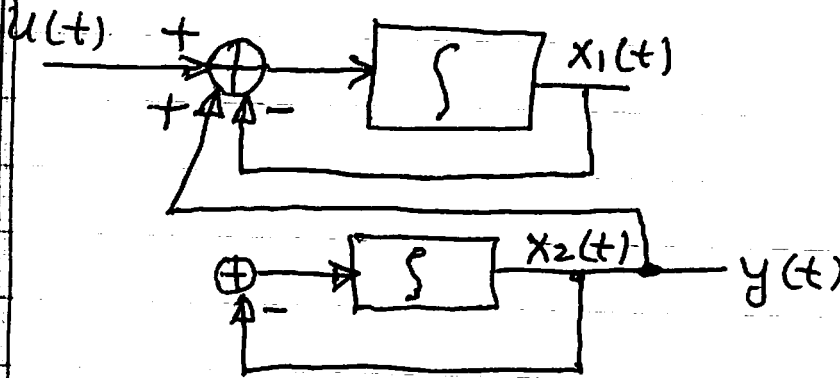
TOTAL POINTS 20

1 PAGE 8 1/2" X 11"

TIME 4.00-5.10 PM

Q1

FOR THE BLOCK DIAGRAM



(12)

- (a) FIND A, B, C, D
- (b) FIND e^{At}
- (c) FIND MATRIX $(j\omega I - A)^{-1}$
- (d) FIND $h(t), H(j\omega)$

Q2

FIND THE SOLUTION TO D.E (Laplace)

(8)

$$y''(t) - y(t) = e^t, \quad y(0) = 1, \quad y'(0) = 1$$