Answers for the SECOND test

Qn. 1

Parallel Connected	*h=h1*h2*
Series connected	*h=h1*h2*

Qn.2 (i) $H(j\omega) = \int_{-\infty}^{0} e^{at}\ dt = 1/(a - j\omega)$

(ii) $e^{j\ \omega} + 1 + e^{-\ j\ \omega} = 1 + 2j\sin(\omega)$

Qn. 3 r1 = -1 r2 = -2

c1=1 c2=-1

$y^{(n)}(t) = e^{-t} - e^{-2t}$

Qn4 $y(t) = -5\int y(t)\,dt - 4\int\int y(t)\,dt + \int\int x(t)\,dt + 3\int x(t)$

Qn 5 $X[k] = j/2\pi k$ for $k <> 0$ and $X[k] = ½$ for $k=0$