

### Correction

$$y_1 = (a + ib)e^{(\alpha + \mu i)t} \quad (1)$$

$$y_2 = (a - ib)e^{(\alpha - \mu i)t} \quad (2)$$

$$y_1 = e^{\alpha t}(a + ib)e^{i\mu t} \quad (3)$$

$$= e^{\alpha t}(a + ib)[\cos(\mu t) + i \sin(\mu t)] \quad (4)$$

$$= e^{\alpha t}\{[a \cos(\mu t) - b \sin(\mu t)] + i[a \sin(\mu t) + b \cos(\mu t)]\} \quad (5)$$

$$= e^{\alpha t}[a \cos(\mu t) - b \sin(\mu t)] + ie^{\alpha t}[a \sin(\mu t) + b \cos(\mu t)] \quad (6)$$

Similarly for  $y_2$  we have

$$y_2 = e^{\alpha t}[a \cos(\mu t) + b \sin(\mu t)] - ie^{\alpha t}[a \sin(\mu t) + b \cos(\mu t)]. \quad (7)$$

$$y(t) = c_1 y_1(t) + c_2 y_2(t) \quad (8)$$

$$(9)$$