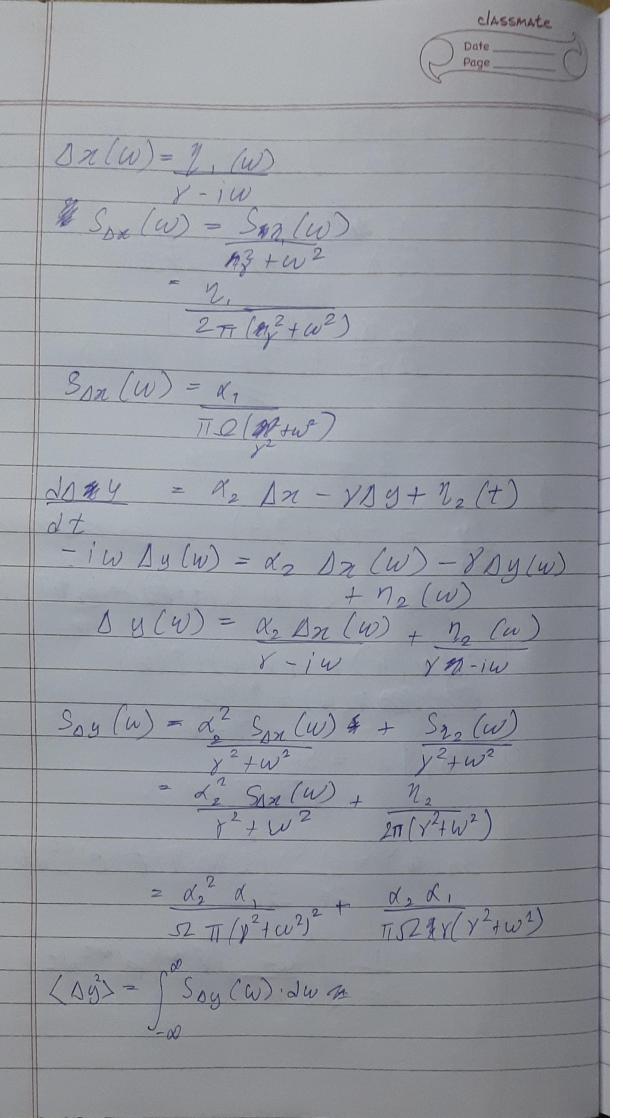
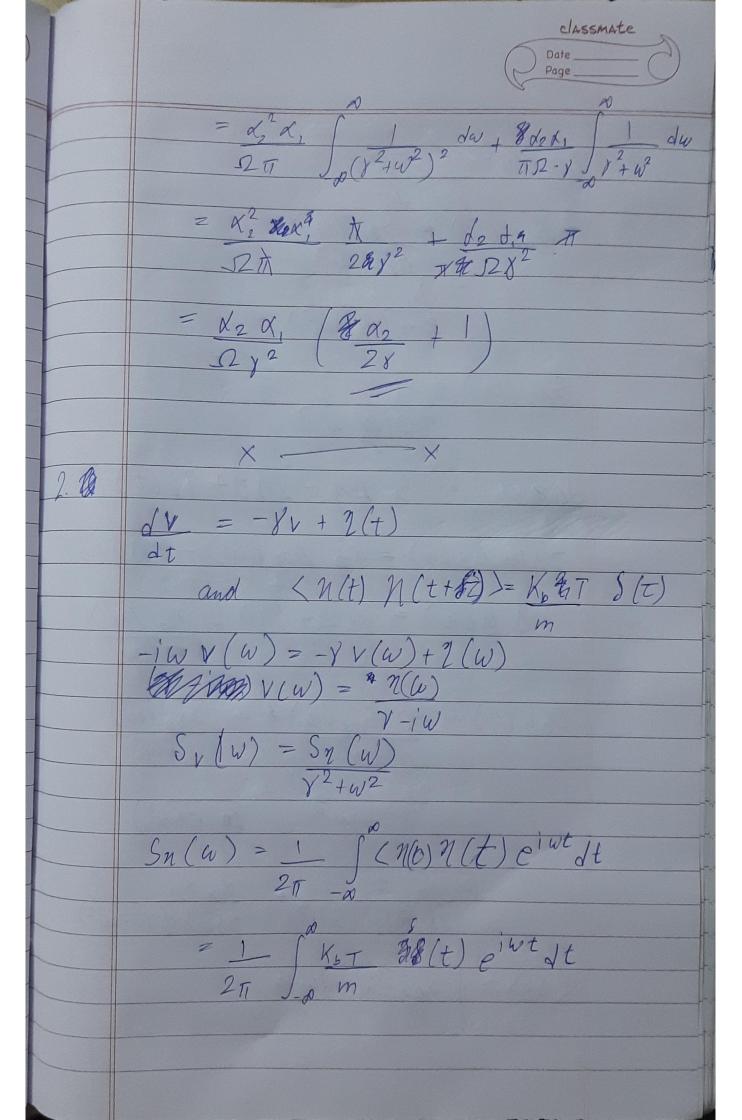
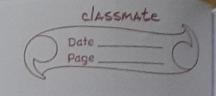
	Date
	Stochastic Assignment 3 George Paul
3.	dn=q,- yn
	dy = x22-8y
	dt
	dax = Yax+ then, (t) has
	where < 1, (0) 11 (t) > = s(t)
	where $\langle \eta, (0), \eta(t) \rangle = \delta(t)$ $d \Delta y = a \alpha_2 D \pi a - y D y + \gamma_e(t)$
	dt
	$\eta = \langle \alpha_i + \gamma_{sa} \rangle$
	$\eta - \chi \alpha, + \chi \chi x > \omega \chi \alpha \alpha (x) = \alpha,$
	= 21,
	-a,
	N2 = (x2 n+ xy) /52
	= 3 x2(x) + 8 <y>/2</y>
	= 2 d 2 d, & B & A
	2 DAY
	1212 = -81x+1, (t)
	-i w 12 (2) 4 = 4 7 1, (w) 4 - 4 1 2 (w)
	$-1 \omega / \omega (n / m - m / n, (w) m - y (n / w)$







$$\frac{-1}{2\pi} \frac{S_{1}(\omega) = K_{b}T}{2\pi m(\chi^{2}+\omega^{2})}$$

Simulated force,

$$m \leq v = -m \times v + m ?(t) + A sin(wt)$$

 $d t$
 $d v = Y = ?(t) + A sin(wt)$
 $d t = e^{xt} d v = e^{xt} ?(t) + e^{xt} A sin(wt)$
 $d t = e^{xt} d v = e^{xt} ?(t) + e^{xt} A sin(wt)$

$$\frac{dt}{dt} = e^{\gamma t} \eta(t) + e^{\gamma t} A \sin(\omega t)$$

$$V(t) = \int \eta(t')e^{x(t'-t)}dt' + \int \int \int \sin(\omega t').$$

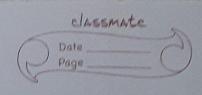
$$V(t) = \int \eta(t')e^{xt'+t}dt' + \int A \sin(wt').$$

$$V(t) = o + \int A \sin(wt)e^{xt}dt' - t' dt$$

$$V(t) = o + \int A \sin(wt)e^{xt}dt' - t' dt$$

$$= A e^{-xt} \left(e^{xt'}(x\sin(wt') - w\cos(wt'))\right)^{\frac{1}{2}}$$

$$= \int \eta(t')e^{xt'+t}dt' + \int A \sin(wt').$$



1. $\frac{\sqrt{n}}{\sqrt{t}} = x, \ \forall x$ $\frac{\sqrt{3}}{\sqrt{t}} = x, \ \forall x$ $\frac{\sqrt{3}}{\sqrt{t}} = -y \ \Delta x + 7, \ (t)$ and $\frac{\sqrt{n}}{\sqrt{t}} = \sqrt{n}, \ (t) = \sqrt{n}, \ ($

 $\frac{\eta_{1} = \langle \alpha_{1} + my_{1} \rangle}{2} = 2\alpha_{1}$ $\frac{2\alpha_{1}}{2} = \langle \eta_{1}(0) \eta_{1}(t) \rangle$

 $\frac{dy_{2}}{dt} = x_{2} x y_{1} - By_{2}$ $\frac{dy_{2}}{dt} = x_{2} x (y_{1}y_{2}) - y_{2} (x_{2}x_{1} + B)$

 $(y_s) = \alpha_2 \alpha, (y_1y_2) \langle y_2 s \rangle = \beta \gamma (y_1y_2)$ $(y_s) = \alpha_2 \alpha, (y_1y_2) \langle y_2 s \rangle = \beta \gamma (y_1y_2)$ $\alpha_2 \alpha, \beta \beta \gamma$

11 y 2 = x2 Dx (y+y2) - < y2 sx2 Dx 2 dt - Dy2 (x2 < 8x1)+ B) + 72(t)

= X < x 3> < y, s> + B < 423>

= 2 d a (B (9 + 92) (XB + d, d 2) \$8 52

 $\frac{dDx}{dt} = -XDx + \eta, (t)$

