(RR)	408
	Bayasian Modeling & Coussian Processes
	Joint Donsidy function a={a1, a2,, and
	p(0/x) = p(x/0) x(0) -> Prior dist. of percember 0
	M(x)
	he Marginal Likelihood
	Ex=3
	let X1, X2, Xn ~ Expanential disti coith penamoter o
	Abdain 11 a D (d, B)
	Obtain the Bayes estimate of a
	$Solines$ $f(x 0) = 0e^{-0x}$
	: L(x/0)= 7 0e 0x = 0 e 0 2xi
2	
	$R(0) = 0 \frac{\alpha - e\beta}{\beta e} - 2$
	Talestal
	Now Pastrices -
	L(α(ο)-π(ο)= Θ e (ε) x O β e
	No. of a
	nta-1 a -0(\(\frac{1}{2},\alpha' + 13)
	Σ O β e
	[a
	- Ball Brando
	[a] (B+ (ai) = +
7.200	0 00 to 10 0 = t
	Ba dt (B+ Exi)
	$(\beta+\xi x_i)^{n+\alpha}$ $(\beta+\xi x_i)$
	(B+23C)

Ba l totalet dt Ba Inta Ta (Bt Exi) Since, an objective is to calculate the partition distribution, [6)x (0/x) 0 By e-0 (B+ Ear) Ta (B+ Exi) n+9 nta nta-1 -0(84 2011) (B+ 501) . O . e (B+ 504) 12(0/x) G (nta, B+ Ex., (0/2)(0) = 0 p(0/2) do = 0+50 V(0)= n+a
(B+ 5xi

	2/41
	Mode = nta-1
	B+ ZX;
	Andrew American Company
<u></u>	Calculate Post. Dist.
<u>a)</u>	Consider a Manual of mitable to the
	i) 22 N(0,1) 2 02 N(4,1)
	3/2 10 (0,1)
$-\parallel$	$\frac{2}{2}$
$-\parallel$	ii) x ~ N(0, e2) PO~N(4, T2), e2 is hnown
	1111) 2 ~ 13 (n, p) & p ~ Beta (a, 13), oxpx1
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