	Page No.: Date:	
	Assignment	. 1 4
	Mannat Sadana	
	102103561	
	3 CO E 20	
	48, 26, 04	
gı.	mean = 0, (Normal distribution)	
	variance = θ_2 $\frac{1}{3}$ $\frac{1}{3}$ $\frac{1}{3}$ $\frac{1}{3}$ $\frac{1}{3}$ $\frac{1}{3}$ $\frac{1}{3}$	
	man likelihood estimate - 3 3 3 3 3 3 3 3 3	
	function $L(0_{1}, 0_{2}, 1_{1}, 1_{2},, 1_{n}) = II I e^{20_{2}}$ $L(0_{1}, 0_{2}, 1_{1}, 1_{2},, 1_{n}) = II I e^{20_{2}}$	
	L(0,102 (x, x2 xn) = IT 1 e 202	
		- 56
	lu L(01, 02 / x1 x2 xn) = -n ln (211 02) -11 5	(x; 0,
	(5. In + mount) 2 min 202 1=1	
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(()	$\begin{cases} S & \text{for mover } \}^2 & \text{for } Q_1 \\ \text{for } Q_1 \\ \text{(A) In (L)} & \text{(A) } = (M & \text{(A) } - Q_1) \\ \text{(A) } & \text{(A) } = (M & \text{(A) } - Q_1) \\ \text{(A) } & \text{(A) } = (M & \text{(A) } - Q_1) \\ \text{(A) } & \text{(A) } = (M & \text{(A) } - Q_1) \\ \text{(A) } & \text{(A) } & \text{(A) } = (M & \text{(A) } - Q_1) \\ \text{(A) } & \text{(A) } \\ \text{(A) } & \text{(A) } \\ \text{(A) } & \text{(A) } \\ \text{(A) } & \text{(A) } \\ \text{(A) } & \text{(A) } \\ \text{(A) } & \text{(A) } \\ \text{(A) } & \text{(A) } \\ \text{(A) } & \text{(A) } \\ \text{(A) } & \text{(A) } \\ \text{(A) } & \text{(A) } \\ \text{(A) } & \text{(A) } \\ \text{(A) } & \text{(A) } \\ \text{(A) } & \text{(A) } \\ \text{(A) } & \text{(A) } \\ \text{(A) } & \text{(A) } \\ \text{(A) } & \text{(A) } \\ \text{(A) } & \text{(A) } \\ \text{(A) } & \text{(A) } \\ \text{(A) } & \text{(A) } \\ \text{(A) } & \text{(A) } \\ \text{(A) } & \text{(A) } \\ \text{(A) } & \text{(A) } \\ \text{(A) } & \text{(A) } \\ \text{(A) } & \text{(A) } \\ \text{(A) } & \text{(A) } \\ \text{(A) } & \text{(A) } \\ \text{(A) } & \text{(A) } \\ \text{(A) } & \text{(A) } \\ \text{(A) } & \text{(A) } \\ \text{(A) } & \text{(A) } & (A$	
a - 1)	$\begin{cases} S = 1 & \text{minimal } \\ S = 1 & minimal $	

Date:

$$\frac{\partial}{\partial O_2} \ln L() = -\frac{\eta}{2O_2} + \frac{1}{2O_2} \frac{Z}{2O_2} \frac{(\lambda_i - O_3)^2}{2O_2}$$

$$\frac{-n}{20} = 0$$

$$\frac{-n}{20} = \frac{1}{20} = \frac{5}{5} (x_i - 0_i)^2$$

$$\hat{Q} = \frac{1}{N} \sum_{i=1}^{N} (x_i - \hat{Q}_i)^2$$

92. Bernoulli distribution

MLE

$$P(X_i = N_1/0) = \theta^{X_i} (1-\theta)^{m-n_i}$$

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$$\sum_{i=1}^{n} \left(\frac{x_i}{\sigma} - \frac{m - x_i}{1 - \Theta} \right) = 0$$

$$\frac{\sum_{i=1}^{n} \chi_{i}}{\delta} = mn - \sum_{i=1}^{n} \chi_{i}$$

$$\vdots \delta = \sum_{i=1}^{m} \chi_{i}$$

$$\vdots = n \cdot m$$

$$\vdots \quad \theta = \sum_{i=1}^{m} \chi_{i}$$

So max likelihood Retinate of 0 is:

$$\hat{\theta}_{MLE} = \sum_{i=1}^{n} \chi_{i}$$

$$i=1, n \cdot m$$