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## Pns Lab 3-2

$$P(n=0) = 10(\frac{1}{2})^{0}(\frac{1}{2})^{10}$$

$$= 1 \times 1 \times 1 = 1 = 0.000976$$

$$= 1024$$

$$P(n=1) = 10 \left( \frac{1}{2} \right)^{\frac{9}{2}}$$

$$= 10 = 0.009765$$

$$P(NZI) = 1 - P(N=0)$$
= 1 - 0.000076

$$0.2 \text{ np} = 5$$
 $\text{npq} = 10$ 

$$p = 5 - (i)$$
 $p = 5 - (ii)$ 
 $p = 5 - (ii)$ 

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9.	N	P(n)	Cummulative PD
	0	0.00228	0.00228
	1	0.0171	0.01938
	2	0.0599	0.07928
	3	0.1298	0.20908
	4.	0.1948	0.40388
	5	0. 2143	0.61818
	6	0.1785	0.79668
	7	0.1148	0.91148
	8	0.0574	0.96888
	9	0.0223	0.99118
	lo	0.00669	0.99787
	U	0.00152	0.99939
0-18	12	0.000253	0.999643
and the	13	D. 0000292	0.9996722
/	14	0.00000209	0.99967429
	1.0	0.000000069	0.999674359
			· Ser . Ser

Q.3. 
$$\lambda = 7.6$$

$$P(n) = e^{-\lambda} \lambda^{2}$$

$$n!$$

$$P(n(3) = P(n=0) + P(n=1) + P(n=2)$$

$$= e^{-7.6} (7.6)^{0} + e^{-7.6} (7.6)^{1} + e^{-7.6} (7.6)^{2}$$

$$= 1!$$
2!

$$= e^{-7.6} \left( 1 + 7.6 + 57.76 \right)$$

$$= e^{-7.6} \left( 8.6 + 28.88 \right) = e^{-7.6} \times 37.48$$

= 0.000 500×37.48

= 0.01875

0.4. 
$$n = 10 \times 10 = 100$$
 ,  $n : no g dyative items$ 

$$P(x=0) = 100 \left( \frac{1}{250} \right) \left( \frac{249}{250} \right) = 100$$

ii 
$$n=1$$

$$P(n=i) = 100 \left( \frac{1}{250} \right)^{1} \left( \frac{249}{250} \right)^{99}$$

iii 
$$P(n \ge 1 - P(n = 0)$$
  
= 1 - 0.6697  
= 0.3303