DATA SCIENCE

CNKesnya Sai Raam 19 BEC 4102.

1) n(3) = 52C3 , 52x51 x50 , 88,400 3x2x1

= 134 × 134 × 134

= 13 × 13 × 13

2 2197

19.04.22.

P(E) = n(E) = 2197 = 169 0(3) 88400 6800

= 0.0165

2) Action Monics = 42%. -> P(A) Comedy movies = B47. > P(B)

Drama movies = 36% > P(c)

Horror movin = 12>, -> P(D)

a) Either action or drama

PLAUC) = PLA) + PLC) - PLANC)

2 42 + 36 -0

P(AUC) = 78/100

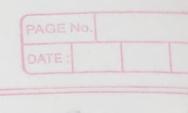
6) Either comedy or horror

P(BUD) - P(B) + P(D) - P(BDD)

= 54 + 12 -0

Prand = 66/100

Bag 1 Red -3 Black . 7. Black -5 P(B), 1/2 P(A) : 1/2 P(Black) = 5/8, P(Black) = 5/11 P(Black) . P(B) x P(Black/B) P(A) xP(Black) +P(B) A P(Black) 2 /2 x 7/11 [1/2 x 5/8] + [1/2 x 7/4] $\frac{2}{22} = \frac{7/22}{10+112} = \frac{7/22}{22} = \frac{2}{22}$ $\frac{5}{16} + \frac{7}{22} = \frac{10+112}{352} = \frac{7}{22} = \frac{2}{22}$ 2 24 64 , 0.5045 1884 P(B/black) 2 0.50 45 . 4) Buren + 450 Applications & I hour. By pourou distribution a) $\lambda_2 459$ 66 $\lambda_2 15/2$, 2.10 $0(x_2x)_2 e^{-15/2} (15/2)^{10}$



ev. (9)9

b) P(X=x) = e-15/2 - (15/2)17

2 0.6321

6)

Z = X - M

0.675 = X - 350876 12405

X = 350870+ (0.675x12405)

2 359237.045

2 359231.045.