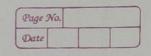
	Assignment 1 D.A.	BE ETRX
	Eeshaan Asodellar	Tage Ivo.
(Q))	Finding priori and	
	Priori pronitics: P(on time) = 14/20	NOS 9
	P (late) = 2/20	down or Nover
	P(V late) = 3/20	
	P (concelled) = 1/20	Most was tenn -
9-91	Computing posterior pro	babilitios:
thin	For attribute "day"	
	1 London &	all alto ave
	Pay on time &	ate Very late Cancelled
	weekday 9/14 Saturday 2/14 C	1/2 0/3
do	Sunday 1/14 0,	2 013 011
	Holiday 2/14 1	/2 0/3 0/1
	> For attribute "Fog"	
	Fog ontine late	very late cancelled
	none 3/14/42	0/3 0/1
	high 4/14/1/2 hormal 5/14/1/2	2/3 0/1
		2/3   0/1
	> for " Season"	
	Season On time Cate	1 1100 (-1-1 ( 10-0
	ground 4/14 01.	00,000
	Summer 6/14 01	
	Autumn 2/1 0/2	
	Winter   2/14/2/2	2/3   0/1



	0	cen.	n
->	100	ce Rai	m

Rain	Outme!	(lake)	Very late	Cancelled
hone	6/14	1/2	173	0/1
slight	6/1400	1/200	ut a 0/13 vovi	0/1
heavy	2/14/	0/2	2/3 /	1/1

Computing the probabilities for the outcome for the Cuelday, winter, high, none

PNB (on time)

x P (high) ontime) x P (None (outine))

$$= \frac{14}{20} \times \frac{9}{14} \times \frac{2}{14} \times \frac{4}{14} \times \frac{6}{14} = 0.0079$$

= P(e) P(wdle) P(wle) P(chle) P(none/e)

$$= \frac{2}{20} \times \frac{1}{2} \times \frac{1}{2} \times \frac{1}{2} \times \frac{1}{2} = 0.0125$$

$$= \frac{2}{20} \times \frac{1}{2} \times \frac{1}{2} \times \frac{1}{2} \times \frac{1}{2} = 0.0125$$

$$= \frac{2}{20} \times \frac{1}{2} \times \frac{1} \times \frac{1}{2} \times \frac{1}{2} \times \frac{1}{2} \times \frac{1}{2} \times \frac{1}{2} \times \frac{1}{2} \times$$

PNB (vony late) 015

= P(Ve) P(wd/ve) P(w/ve) (Ch/ve) P(none/ve)

$$\frac{3}{20} \times \frac{3}{3} \times \frac{2}{3} \times \frac{1}{3} \times \frac{1$$

Pig Cancelled) X 1= 76 love X 10.0 +A

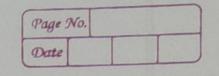
PCC) P(wd)c) P(w)c) P(h)c) P(none)c)

	Page No.  Date
	PNB(late) is highest "NDP"
hel	PNB(ble) > {P(ve) > P(ot) > P(o)}
	090 given 1/p tuple 15 classified as "Late"
(02)	
trome	total = 1500 people
Car	To fest hypothesis: alender and reading
	To fest hypothesis: gender and reading preferences are independent, and uncorrelated
1 .	(en time)
(sur.	Using X2 correlation test with contingency table (2x2) and (2+1) degrees of breedom
	table (2x2) and (2+1) degrees of
	$x^{2} = \sum_{i=1}^{2} \sum_{j=1}^{2} (0_{ij} - Ne_{ij})^{2} N_{ij} \times $
	i j Eii
	where Oij -> observed freq. (0)9 =
10	where Oij - observed freg.
(2)	MON) 9 (l 16) 1 Expected 1 Rreg 9 (D) =
2	X2 SX X X X X X X X X X X X X X X X X X
	$\frac{(230-10)^{2}+(30-210)}{90}+(200-360)}{210}$
P (Mare IV	42 (1000 + 820) 3 (2 507, 9365) 9 -
	1110 0840 1 1 2 2 8 8 8
	3 3 3 3
	At 0.01 K, and of = 1, x2 rejection
101	

alue 150) 910.8280

1 1 7

1 705



Since 507.94 > 10.828; we can
reject the hypothesos that gender and
preferred reading are independent and
therefore, we conclude that there is some
condation between them.