18 19 20 21 25 26 27 28 29 30 31 CPTS for the Naive Bayes Modely PCCD (8+42+4+22+1+3+1+4)-0.34 250 2+1+31+6+11+3+30+21)=165 0.66 250 P/F. (C) (8+42+4+22)/2== (2+1+31+6+0)/250 = 40/250 = 0.16 (1+3+++4)1250=21250= 8.036 CH+3+90+ F PCF, IC) C (8+42+4+22) 185 = 76/85 20.894117 (2+1+31+6)/8165 = 40/165 = 0.242424 1) f (1+3+1+4) / 85 = 9/85 × 0.10588 F n (11+3+90+21)/165 = 125/165 = 0.757 ≈0.75757 PCF,) (8+2+ 42+1+4+31+22+6)/250 = 116/250=0.464 (1+11+3+3+10+90+4+21)/250=134/250=0.536

17	
17	
Sat	
f	C P(F2 1C)
+	P (8+42+1+3) 185 = 0.63529
t	n (2+1+11+3)/165=17/165 = 0.103030
_f	P (4+22+1+4)/85=31/85 = 0.3647
F	n (31+6+90+21)/165 = 148/165 = 0.8969
-	
	F_2 $P(F_2)$
Fa	£ (8+2+42+1+1+11+3+3)/250= 0.284
	F (4+31+22+6+1+90+4+21)/25020-716
- 11	
18	
18 Sun	
Sun	
Sun f3	C P(F31C)
Sun f3	$\frac{C P(F_3 C)}{P(8+4+1+1)/85} = 0.16420$
Sun f3	$P = (8+4+1+1)/85 = 14/85 \approx 0.16470$ $(2+31+11+90)/165 = 134/165 \approx 0.16470$
Sun f3	P (8+4+1+1)/85 = 14/85 \approx 0.16470 n (2+31+11+90)/165 = 134/165 \approx 0.81212 P (42+22+3+4)/85 = 7/105 \approx 0.81212
Sun f3	P (8+4+1+1)/85 = 14/85 \approx 0.16470 n (2+31+11+90)/165 = 134/165 \approx 0.81212 P (42+22+3+4)/85 = 7/105 \approx 0.81212
Sun f3	P (8+4+1+1)/85 = 14/85 \approx 0.16470 n (2+31+11+90)/165 = 134/165 \approx 0.81212 P (42+22+3+4)/85 = 71/85 \approx 0.83529 n (1+6+3+21)/165 = 31/165 \approx 0.187878
Sun f3 t f f	P (8+4+1+1)/85 = 14/85 \approx 0.16470 n (2+31+11+90)/165 = 134/165 \approx 0.81212 P (42+22+3+4)/85 = 71/85 \approx 0.83529 n (1+6+3+21)/165 = 31/165 \approx 0.187878
Sun f3 t f f f	P (8+4+1+1)/85 = 14/85 ≈ 0.16470 n (2+31+11+90)/165 = 134/165 ≈ 0.81212 P (42+22+3+4)/85 = 71/85 ≈ 0.83529 N (1+6+3+21)/165 = 31/165 ≈ 0.187978 P (F3) (8+2+4+31+1+11+1+90)/26 ≈ 0.187978
Sun f3 t f f	P (8+4+1+1)/85 = 14/85 \approx 0.16470 n (2+31+11+90)/165 = 134/165 \approx 0.81212 P (42+22+3+4)/85 = 71/85 \approx 0.83529 n (1+6+3+21)/165 = 31/165 \approx 0.187878

- - --

Thu

(b) The given conditional probability,

P(C2P|F1=f, F2=t, F3=f) represents

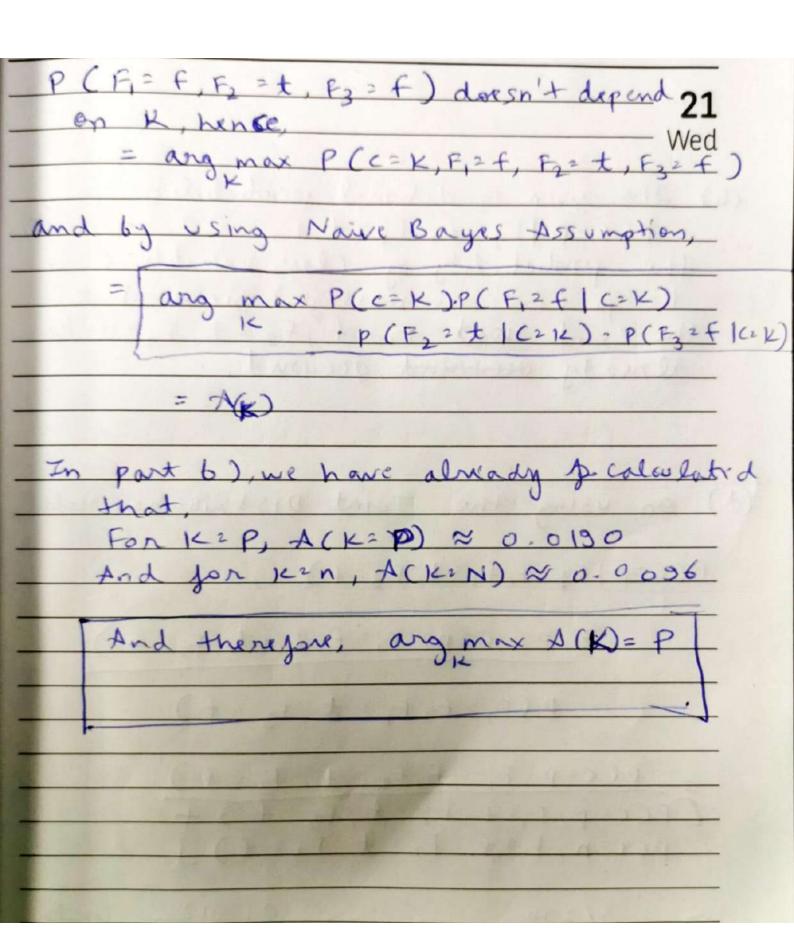
the probability of Class Variable C to

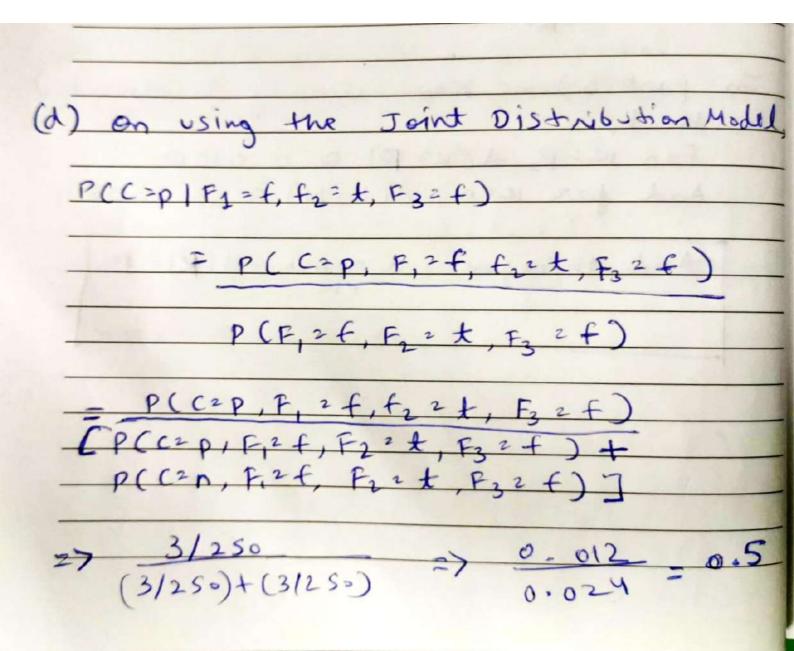
be p (positive message) given that

the event took F1=f, F2=t, F3=f has

already occurred. occurred.

```
(b) P(c=p|F,=f,F2=t,F3=f)
The probability of the given configuration can be calculated by.
P(C=p|F,=f,F2=t,F3=f)=
      = P((=P) P(F=f, F2=t,F3=f|(=p)
            P(F,=f,F2=t,F3=f)
     = P(C=P) P(F,=f|C=p) P(F2=t|C=p)P(F3=flo
         P(F, 2f, F2 = t, f3 = f)
   2 0.34 X 0.10588 X 0.63529 X 0.83529
LP((=P) * P(F,=f|(2p) + P(F = t | (2 p) *
P(F3=f1(=p)]+[P(C=N)xp(F,=f1(=n)
     *P(F2= t 1(2n) *P(F3=f 1(En)]
2 0,0190
 0.0190+ [0.66 x 0.18 x 0.10 x 0.75]
 2 0.0190 + 0.0036
  2 0.0190 ≈ 0.67
    0000-02791
```





e) By using Fully Independent Model,

P(C=p|F₁=f, F₂=t, F₃=f) = P(C=p)

=851250

=0.34