	Name: Reg no	This is a second of the second	nas F	Asif cs-c	88				
	Comput IF. II S1"S S2 "B1 S3 "S	or. unshine own f unshin	state Tox ju	enjoump highte	y s	sunshi rown un (fox tost	w) *2	
	sunshine	state	enjoy	brown	fox	-	high	run	1.
51	Sunstille 2		١	0	0	0	0	b	-
52	6	0	0	2	2				-
53	1		O	0		0	0	0	
	Vector S1: Vector S2: Vector S3	[0,	0,0	0 1	0	0	0,0		

	Term frequency										
	sunshine	state		brown		-		nin	fast		
46-51	2/4	1/4	1/4	0	0		0	b	D section of the contract of the contract of		
t1-52		0	0	2/7	2/7	47	1/2		0		
4-3	3 1/5	1/5	0	0	1/5	0	0	1/5	1/5		
	IDF	nay	and the greatest and a series (Sec.								
Magnetic control of the second	IDF Inverse document frequency										
per grant relative, filted of veneral thread of violents light consistent	id((sun shine) = log (3/2) = 0.18										
games learned the Company of the State of Company of the Company of Company o	id((state) = log (3/2) = 0.18										
termina disenting and these emergence and abusiness control to an	idf (state) = log (3/2) = 0.18 $idf (enjoy) = log (3/1) = 0.48$ $idf (brown) = log (3/1) = 0.48$ $idf (fox) = log (3/2) = 0.18$ $idf (jump) = log (3/1) = 0.48$ $idf (high) = log (3/1) = 0.48$										
	idf(high) = log(3/1) = 0.48 idf(run) = log(3/2) = 0.18										
	id (fast) = log (3/1) = 0.48										
									Market State		
	TF: IDF										
	S1 → sunshine state enjoy sunshine.										
	tf.idf(sunshine) = 2x 0.18 = 0.09										
	if . idf (state) = 1/4 x 0.18 = 0.045										
	tf. idf (enjoy) = 1/4 x 0.48 = 0.12										
		* 100									

```
52 - brown fox jump high, brown for rum?
 tf ·idf (brown) = 2/7 x 0.48 = 0.14
If idf(fox) = \frac{2}{7} \times 0.18 = 0.05

If idf(jump) = \frac{7}{7} \times 0.48 = 0.07
     tf.idf (high) = 1/7 x 0.48 = 0.07
tf.idf (run) = 1/7 x 0.18 = 0.03
    53 - " sunstine state fox run faul "
     tf. idf (sunshine) = 1/5 x 0.18 = 0.04
     tf. idf (state) = (1/5 x 0.18) = 0.04
     tf.idf (fox) = 1/5 x 0.18 = 0.04
     tf-idf (run) = 1/5 x 0.18 = 0.04
     tf.idf (fast) = 1/5 x 0.48 = 0.096
     Auestion No # 2
          Cosine - Similarity
     Si and 53
   TF - IDF vectors :-
```

```
51 = [0.09, 0.045 0.12 00000]
53 = [0.04 0.04 0 0 00 4 00 0 0
                        40096]
cos (S1, S3) = S1.S3
             |51 | |53|
S1.53 = (0.09 x0.04) + (0.045 x0.04)
             + 0 + 0 + 0 + 0
             + 0+0+0=0.0054
1811 = (0.09 x 0.09) + (0.045 x 0.045) +0+0
        0.101 = 0.15660
 S31 = 1 (0.04) x(0.04) + (0.0410.04) + (0.04x0.04)
          + (0.04 ×0.04) + (0.096 ×0.096)
     0.0016 + 0.0016 + 0.00$16 + 0.0016
          + 0.0092
```

1531 = 0.125 cos(s1,s3) = 0.00540.15660 x 0.125 0.275