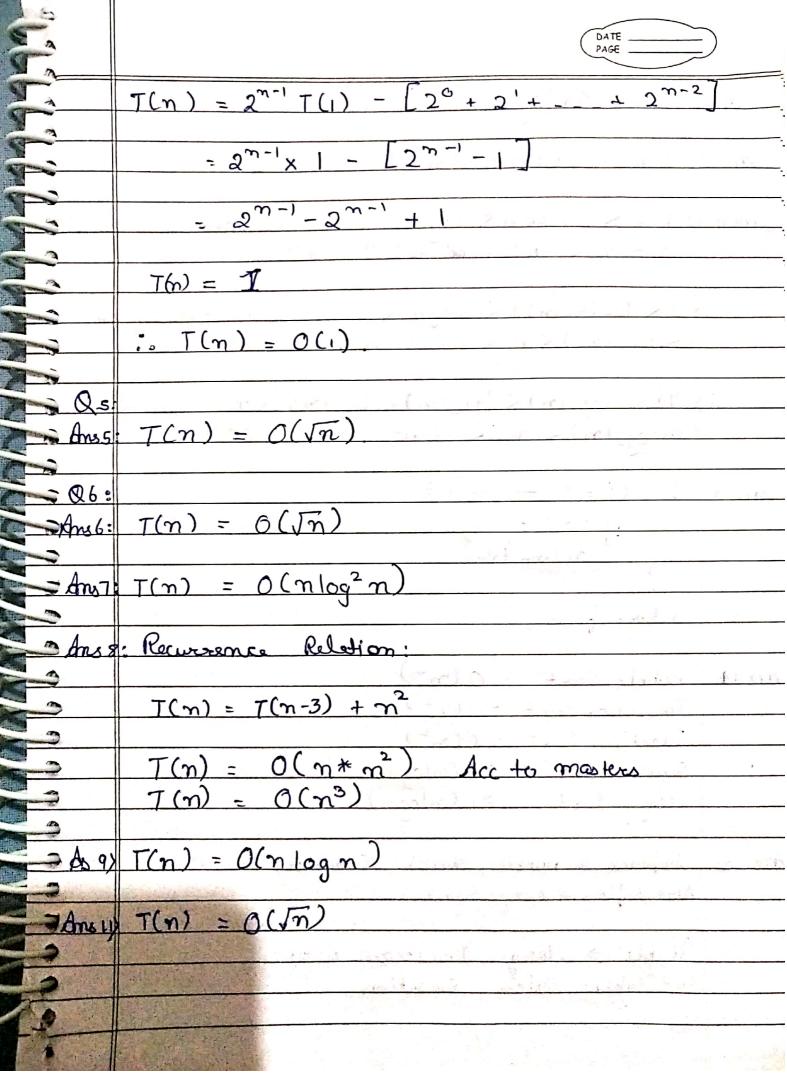
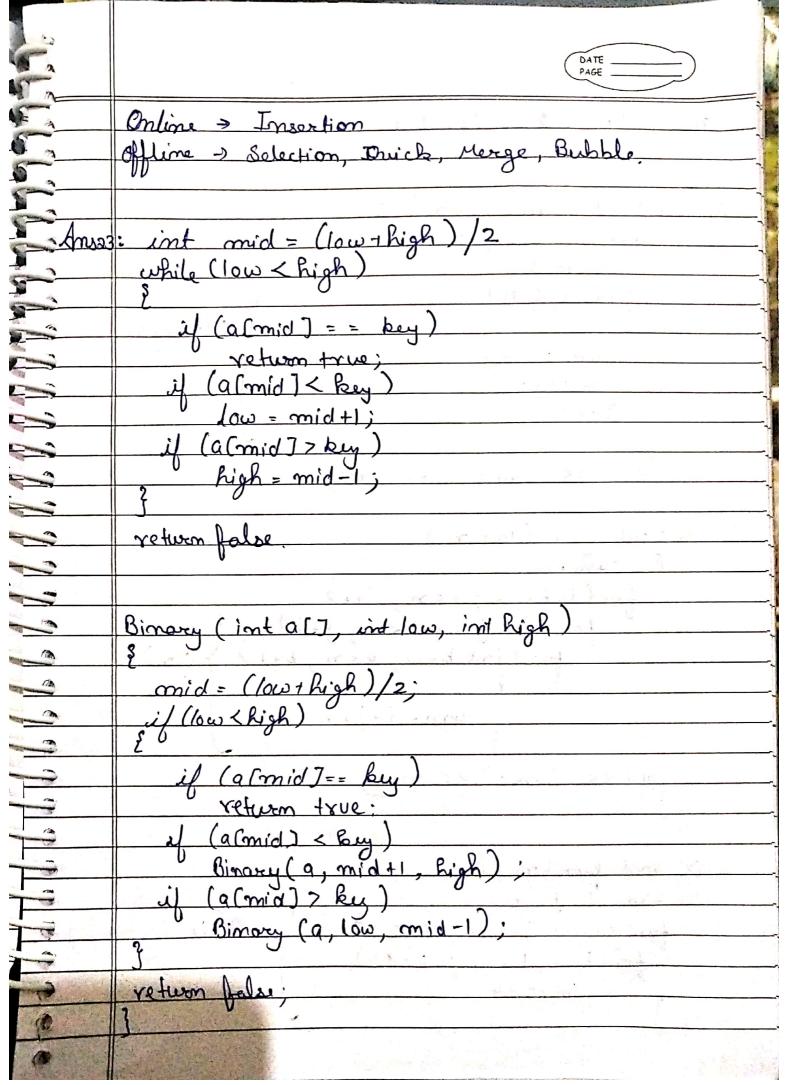


		the second second second
	CATE	2
	il a = 1 +200 a(m * 1(m))	4
100	if a = 1 them O(n* \(\(\frac{1}{2}\)(n)\) if a > 1 them O(n* a*\(\frac{1}{2}\))	
	of all than o(nk).	
all magnetic field		
	. Acc to masters method:	e 2)
	05 971	
	7	
	Time required T(n) = O(3 ^m).	
Q 4:		
	Acc to masters Thootom :	
	T(m) = O(1)	
	# - 1- # 1- # 1- # 1- # 1- # 1- # 1- #	
	T(m) = 2T(m-1) - 1	c E
	T(n-1) = 2.7(n-2) - 1	
	T(m) = 2(2T(m-2)-1)-1	
	$T(n) = a^2T(n-2)-1$	
	$T(n) = 2^{2}(2T(n-3)-1)-2-1$	
	$T(n) = 2^3 T(n-3) - 2^2 - 2 - 1$	CE
	Similarly for k steps:	de la
	$= 2^{k} T(m-k) - 2^{k-1} - 2^{k-2} - 2^{2} - 2^{1} - 2^{0}$	
Angertal Services de Maleiro Petrone.	7/.)	
	T(1)=1, $m-k=1$ $k=m-1$	2
	A belitalians de a mal	0 0
	dubstituting = m-1	



	DATE		5 k
	PAGE	4	
Amis	$T(n) = o(n\log(n))$	4	-
	S S S S S S S S S S S S S S S S S S S	VIII.	-
Aru 16	I(n) = 6(log log(n))	0.1	-
			4.
Ans 18 i	100 < log log n < log n < log (n;) < rdot n < m mlog n < m! < 22 < 47	0	
	$m \log x < w / < 8 $	6	
		4-11	1
	1 < log (log (m)) < log n < log (m) < 2 log (m) < log 2m < log (m) < m < 2 m < 4 m < m; < m=		3
	< log(m!) < n < 2 n < 4n < n! < n2		-
	911 100 () 1 () 1 () 1 () 1 () 1		2
	96< log_s(n) < log_2(n) < log(nb) < n log_s(n) < n log_2(n) < 2 m² < 7 m³ < 82m.		
	31092 (2) < 11; < 2 2 2 (2) < 2		3
A	for (i = 0 to n) {		
AIMIS	i) (a(i) == kcy)		
	return true		
	Ychum false;		
	Visit of the second sec	-	-
Ansat	Bubble Sort = 0 (n2)	-	
	Insertion Sort = 0 (n2)	- CT	
	Selection Sort = O(n2)	e F	1
	Quick Sort = O(mlogn)	e F	
	Merge Sort = O(nlogn)	ST	
	0	e t	
Amez	Implace > Bubble, Quick, Selection, Inscrtian	a F	-
	Not Implace > Merge Sort	0	To bearing.
			Section 1
	Stable > Merge Insection, Bubble		
	Stable > Merge, Insection, Bubble, Not Stable > Ouich, Election		F
			C
			1
The second secon		The second secon	_



```
Amou: T(n) = & T(n/2) + 1
Q13
Ans 13: > void sum (int n) E
     ent i= 0, j=1;
      intsum=0;
while (ikm)
                                            O (nlogn
          Sum = i+j;
         i = i+j;
       cout << Som = ' <<sum;
   > void fum (int n)
        for (int i= 0; i<n; i++)

for (int j=0; j<n; j++)

for (int k=0; k<n; k++)
     lout ca "Sum = " 1c sum;
 => Void fun (n) 8.
    for (j=1; j=+2;)

for (k=1; k<=1; k=*2)
                                            Of loglog Cm
          Count ++
```

DATE)
PAGE	——— <i>—</i>

7	DATE PAGE
Q12	
3 dress	T(n) = T(n-2) + T(n-1)
-	Space Complenity = O(n) due to stack
4-3-	
	T(n) = T(n-1) + T(n-2) + 4
,	
	$T(n-1) \approx T(n-2)$
	T(n) = 2T(n-2) + 4
-3	Acc to Mosters Theorem:
	$T(m) = O(4 * 2^{m/2})$
	$T(1) = \Delta(1) \qquad M_2$
	$T(n) = O(4 \times 2^{m/2})$
	$T(n) - O(2^{\frac{n+1}{2}}) = O(2^n)$
	$\frac{1(n)-0(\lambda)-0(\lambda)}{}$
4	
2014	
Anis	we can safely Assume
	$T(\gamma_{0}) = T(\gamma_{0})$
-	:. T(n) = 2T(1/2) + cn2
-	
1-1	Case 3: if logia < K if p>0 O(n*logn)
7-	
F	if p(0 O(nk)

