

# Persistent Sample Paper

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Company : Persistent  
Date : 15 Jan 2004  
College :

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## 1<sup>ST</sup> SECTION:( DATA STRUCTURE)

1. question from binary search tree ans(250)
- 2.
3. hash table problem ans(5)
4. adjacent matrix to calculate shortest path ans(7)
- 5.

## 2nd SECTION (C LANGAUGE)

- 1 what is int(\*(\*ptr (int))(void))
2. recursion to find the value of GET(I don't remaember the digit but it is 2 arguments (ans 6)
- 3.
- 4 recursion function to calculate fun(4,9)( ans e)
- 5 problem from strcmp

## 3<sup>rd</sup> SECTION(O.S)

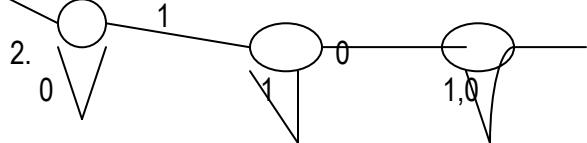
- 1.
- 2 string reference is given calculate the page fault based on LRU (ans:3 or 6)
- 3cache hit ratio numerical (ans 98%)
- 4 ans 360 (but I am not sure)
- 5

## 4<sup>TH</sup> SECTION(DBMS)

1. query is given based on table employ(eno,name,salary....),workl(eno,...),project(pno,....)  
select eno from employ where eno in(select eno from workl groupby eno where  
count(\*)=(select count(\*) from project))
- 2.select eno from emplo where salary=salary
- 3.which is not required in trascation  
options are (a).atomicity (b)isolation (c)normalization (d)concerrancy
- 4.
- 5

### 5<sup>TH</sup> SECTION(TOC)

1. one transition state is given identify the grammar it accept



option are( a)  $(10)^*$  (b) string starting from 1 (c) string starting from 0

(d)  $1^*0^*$

2. topology ans(b)

3

4

5  $S \rightarrow 1S1$

$S \rightarrow 00$

$S \rightarrow 11$

$S \rightarrow 0S0$

Option are (a) 00100100 {b) 110010001(c) I don't remember

### 6<sup>TH</sup> SECTION (GENERAL COMPUTER)

1

2. difference between packet switching and circuit switching

3. what is the probability of the occurrence of 7 between 0 and 999 ans(18/25)

4. ans (360)

5. ans (37000)

SECOND ROUND (OF 1 HOUR) (VERY VERY TOUGH)

TWO C PROGRAMS ARE GIVEN

Q1. U have to write the function for matrix addition using link list.  
It is called "sparse matrix". The structure for the element is as follows.

```
Typedef struct element{  
  
    Int row;  
  
    Int column;  
  
    Int value;  
  
    Element * next;  
  
}element,sparsematrix*;
```

If value contains zero then there should not be node assign for that.U have to also check boundary condition in your program.

Function is:

SparseMatrix SmAdd(SaprseMatrix m1,SparseMatrix m2)

( Revised concept of linked list and have a look at coding.....)

Q2. Problem:-

One boy has to climb steps. He can climb 1 or 2 steps at a time.

Write a function that will returns number of way a boy can climb the steps.

Int WaytoSteps(int n)

(eg:- suppose number of steps is n=4 ,the function will return 5  
(one-one-one-one ,one-one-two, one-two-one-,two-one-one, two-two)