

Persistent Sample Paper

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Company : Persistent
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College :

1ST 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.

2ndSECTION (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

3rd SECTION(O.S)

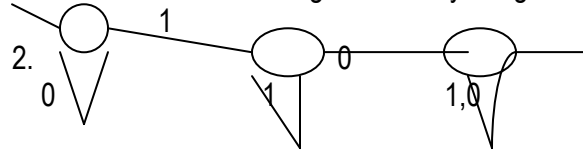
- 1.
- 2 string reference is given calculate the page fault based on LRU (ans:3 or 6)
- 3cache hit ratio numerical (ans 98%)
- 4 ans 360 (but I am not sure)
- 5

4TH 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 emply where salary=salary
- 3.which is not required in trascation
options are (a).atomicity (b)isolation (c)normalization (d)concerrancy
- 4.
- 5

5TH SECTION(TOC)

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



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

(d) 1^*0^*

2. totology 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

6th 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,sparsematrin*;
```

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)