Persistent Systems Placement Paper

Q1) On which maximum operations cannot be performed .Something like that

    a) Array
    b) Hash Table
    c) Linked List
    d) Heap
    e) Binary Tree

Q2) A hash table has a size of 11 and data filled in its position like {3,5,7,9,6}how many comparisons have to be made if data is not found in the list in worst case

    a) 2
    b) 6
    c) 11

ANS: 2

Q3) Forest with n Trees and having p edges then

    a) n(1-p)
    b) n = p +2
    c) n-p+1

Q4) Find the shortest path from B to E

ANS: 7

SECTION : II

C LANGAUGE

Q1) What is int(*(*ptr (int))(void)

Q2) What is the output?

```
func(char *s1,char * s2)
{
char *t;
t=s1;
s1=s2;
s2=t;
}
void main()
{
char *s1="jack", *s2="jill";
func(s1,s2);
printf("%s %s ",s1,s2);
}
```

ANS: jack jill

Q3) What is the output?

```
void main()
{
int a[5] ={1,2,3,4,5},i,j=2,b;
for (i =0;i<5;i++ )
func(j,a[i]);
for (i =0;i<5;i++ )
printf("%d",a[i]);
}
func(int j,int *a)
{
j=j+1;
a=a+j;
b= b+2;
}
```

Q4) What is the output?

```
void main()
{
for (a=1;a<=100;a++)
for(b=a;b<=100;b++)
foo();
}
foo()
{ }
```

How many times foo will be called.

    a) 5050
    b) 1010

ANS: 5050

SECTION III:

OS:

Q1) If there are n processes and each process waits p time in waiting state then cpu utilization is-:

    a) n(1-p)
    b) n*p

Q2)No. of pages are given and using LRU algorithm we have to find the number of page faults.

    a)2

b)6

c)5

d)7

Q3)There is a file server which provides locking for mutual exclusion . if any process locks the file and abruptly terminated this will result in indefinitely locking .The solution they found is to implement a timer for locking of file i.e. if time outs then server assumes that file is indefinitely locked and terminate the process –

a) this solution is perfect for mutual exclusion

b) this will solve indefinite locking

c) this will result in interleaving of file between processes

d) will allow the concurrent process to access the file.

Q4) A critical Section is

a)for mutual exclusion

b)a set of shared resources

Q5) Match the following.

1)Critical Section

a)Mutual exclusion

2)Wait/signal

b)Deadlock

3)Working set

c) Hoares Monitor

4)Semaphore

TOC:

Q1) CFG was given

S -> 1 S 1
S-> 0 S 0
S -> 1 1
S -> 0 0

SECTION V:

GENERAL:

Q1) Probability to find digits which not contain 7 between 100 to 999

ANS: 18/25

Q2) Difference between Packet switching & Circuit Switching.

ANS: CS take more time to established circuit.

Q3) In cache memory 100ns an in main memory 1200ns what is the cache hit ratio(Question is not exactly the same,but something related to cache hit ratio)

Q4) From the set {a,b,c,d,e,f} find no. of arrangements for 3 alphabets with no data repeated.

ANS: 360. OR for 4 alpha ANS=720.

DBMS:

Q1)

> *employee(eno,ename)*
> *works_on(eno,pno,ename)*
> *project(pno, project)*
> *select ename from employee where eno in(select eno from works_on where pno*
> *=(select *from*
> *project)*

What is the output ?

> a) Employee who works on all project.
> b) Employee who works one project .
> c) name of employee who works on more than one project.

Q2) Select e name from employee where salary = salary

Q3) What is the use of B-tree

> a) has fixed index file size
> b) is better for queries like < <= > >=
> c) searching will be easy

Q4) Question on inner Join returning N- tuples & Full outer Join returns M- tuples. For both Variables are given & in options relationship is given to find whichever have greater tuples. And variable D is given------

> a) then N= M
> b) N = M + D

Q5) To save space which option is better

    a) write all join operation then select then project
    b) write all join operation then projects then select
    c) write all join operation then select between project

Q1) Inward-spiral order matrix.

    1 2 5 4
    8 9 7 1
    9 7 6 3
    2 3 5 8

ANS: 1, 2, 5, 4, 1, 3, 8, 5, 3, 2, 9, 8, 9, 7, 6, 7