Persistent Technical Paper 5

If there r n proceses and each process waits p time in waiting state then cpu utilization is-:
  a) n(1-p)
  b) n*p

1. A string of pages were given and no of page faults have to be found in LRU algorithm

2. here is a file server which provides locking for mutual exclusion . if any procees 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 exclausion
   b) this will solve indefinite locking
   c) this will result in interleaving of file between processes
   d)

3. A critical section is –
   ans a set of instruction which is shared by many proceeses

4. There was a question on automata ans – the resultant string will have even no of c

5. CFG was given
   S -> 1 S 1
   S-> 0 S 0
   S -> 1 1
   S -> 0 0
   Find out the string

6. One singly circular ordered list is there if M elements are ti be inserted what will be the complexity of time
   a) O(M*N)
   b) O(M*(M+N))
   c) O ((M+N) * log(M+N))
   d)

7. find postfix and prefix of
   A + B * (C + D) / E + F

8. Find out shortest path from A to B
   A B C D E
   A 0 m
   B m 0 2 2 m
   C 0 5
   D 0 6
   E 0

9. From the following when 43 will not be found by binary search (a series was given with last element 43 in each)

10. From 100 – 999 find the prob. Of getting 3 digit no with no 7 in any of its digit
   a) 18/25

b) 10/25

c) 729/1000

d)

11. from the set {a,b,c,d,e,f} find no of arrangements for 3 alphabet with no data repeated

12. To save space which option is better

a) write all join operation than select than project

b) ---------,,------------------than project----select

c) ----------,,------------------in b/w select and project

Employee = { e_no , salary, fname, lname}

Works_On = {e_no, p_no, hrs}

Project = {p_no, p_name}

14. select e_no from Employee where salary = salary

a) query invalid

b)

15. Select fname ,lname from Employee where e_no in (select e_no from works_on where p_no
=(select * from project))

a) name of Employee who works on all project

b)

c)

d)

16. B tree is different from other

a) has fixed index file size

b) is better for queries like $<$ $<=$ $>$ $>=$

c) searching will be easy

d)

17. 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);
}
OUTPUT jack jill
```

18. void main()

```
{
  int a[5] ={1,2,3,4,5},i,j=2;
  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;
    }
```

19. oid 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
c)
d)

20. A hash table has a sie 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
d)

21. packet switching is better than circuit switching coz
a) it takes less time
b) it takes less bandwidth
c)
d)

22. addition of two sparse matrix in 3 tuple notation ---time 30 min
24a tree has 1000000 nodes than how many search r required to search a node
a) 25
b)
c)
d)

23. A prgrm to arrange a string in order of occurrence of the character