

Motorola Sample Paper

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1. bubble sorting is

- a) two stage sorting
- b).....
- c)....
- d) none of the above

2. c++ supports

- a) pass by value only
- b) pass by name
- c) pass by pointer
- d) pass by value and by reference

3. Selection sort for a sequence of N elements

no of comparisons = _____

no of exchanges = _____

4. Insertion sort

no of comparisons = _____

no of exchanges = _____

5. what is a language?

- a) set of alphabets
- b) set of strings formed from alphabets
- c).....
- d) none of the above

6. which is true abt heap sort

- a) two method sort
- b) has complexity of $O(N^2)$
- c) complexity of $O(N^3)$

d).....

7. In binary tree which of the following is true

- a) binary tree with even nodes is balanced
- b) every binary tree has a balance tree
- c) every binary tree can't be balanced
- d) binary tree with odd no of nodes can always be balanced

8. which of the following is not conducive for linked list implementation of array

- a) binary search
- b) sequential search
- c) selection sort
- d) bubble sort

9. In c++ , casting in C is upgraded as

- a) dynamic_cast
- b) static_cast
- c) const_cast
- d) reinterpret_cast

10. which of the following is true abt AOV(Active On Vertex trees)

- a) it is an undirected graph with vertex representing activities and edges representing precedence relations
- b) it is a directed graph "" "" "" "" "" "" "" "" "" "" ""
- c)
- d)

11. Question on worst and best case of sequential search

12. question on breadth first search

13. char *p="abcdefghijklmno"

then printf("%s",5[p]);

14. what is the error

```
struct { int item; int x;}
```

```
main(){ int y=4; return y;}
```

error: absence of semicolon

15. which of the following is false regarding protected members

- a) can be accessed by friend functions of the child
- b) can be accessed by friends of child's child
- c) usually unaccessible by friends of class
- d) child has the ability to convert child ptr to base ptr

16. what is the output of the following

```
void main()
{
int a=5,b=10;
int &ref1=a,&ref2=b;
ref1=ref2;
++ ref1;
++ ref2;
cout<<a<<b<<endl;
}
```

value of a and b

- a) 5 and 12
- b) 7 and 10
- c) 11 and 11
- d) none of the above

17. what does this return

```
f(int n)
{
return n<1?0:n==1?1:f(n-1)+f(n-2)
}
```

hint: this is to generate fibonacci series

code for finding out whether a string is a palindrome, reversal of linked list, recursive computation of factorial with

blanks in the case of some variables. we have to fill it out.

18. for eg; for palindrome

```
palindrome(char * inputstring)
{
int len=strlen ( ?);
int start= ?;
end =inputstring + ?-?;
```

```
for(; ?<end && ?==?;++ ?/--?);  
return(==?);  
}
```

we have to replace the question marks(?) with corresponding variables

19.linked list reversal

```
Linked (Link *h)  
{  
Link *temp,*r=0,*y=h;  
while(y!= ?) (ans:Null)  
{  
temp = ?;(ans:y->next)  
some code here with similar fill in type  
}
```

20.fill in the blanks type question involving recursive factorial computation.