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Register No.:

Half-Yearly Examination - 2023

COMPUTER SCIENCE

Time: 3:00 Hrs Marks: 70

PART - I

Choose the best answer. **(15x1=15)**

1. When your system restarts which type of booting is used
   a) warm booting b) cold booting c) touch boot d) real boot
2. 2^50 is referred as a) Kilo b) Tera c) Peta c) Zetta
3. Which is the fastest memory a) Hard disk b) Main memory c) Cache memory d) BluRay disc
4. Operating system is a a) Application software b) Hardware c) System software d) Component
5. The shortcut key used to rename file in windows a) F2 b) F4 c) F5 c) F6
6. If i=5 before the assignment i =i-1 after the assignment the value of i is a) 5 b) 4 c) 3 d) 2
7. Suppose u,v=10,5 before the assignment, what are the values of u and v after the sequence of assignments 1. u:=v 2. v:=u a) u,v=5,5 b) u,v=10,5 c) u,v=5,10 d) u,v=10,10
8. Who coined C++?
   a) Rick Mascitti b) Rick Bjarne c) Bill Gates d) Dennis Ritchie
9. What will be the result of the following statement
   char ch='B'
   cout<<(int) ch
   a) B b) b c) 65 d) 66
10. How many times the following loop execute? For(int i=0;i<=10;i++) a) 0 b) 10 c) 9 d) 11
11. Which function is used to check whether a charcter is alpha numeric or not?
    a) isalpha() b) isdigit() c) islower() d) isalnum()
12. int age[ ]={6,90,20,18,2}, How many elements are there in this array? a) A b) 5 c) 6 d) 4
13. void dispchar(char ch='$', int size=10)
    {
    for(int i=1;i<=size;i++)
     cout<<ch;
    }
    How will you invoke the function dispchar() for the following input
    a) dispchar(); b) dispchar(ch,size); c) dispchar('$',10); d) dispchar('$',10 times)
14. Which visibility mode should be used when you want the features of base class to be available to the derived class but not to the classes that are derived from the derived class
    a) private b) public c) protected d) all of these
15. The process of converting cipher to plain test is called
    a) Encryption b) Decryption c) Anti-virus d) proxy server

PART - II

Answer any SIX questions. Question No.24 is compulsory. **(6x2=12)**

16. Distinguish between data and information
17. What is multi user operating system?
18. Define an algorithm
19. Define a loop invariant
20. Write a short note on const keyword with an example.
21. What are the importance of void data type?
22. What is warez?
23. What is TSCII?
24. Write the De Morgan's law

PART - III

Answer any SIX questions. Question No.33 is compulsory **(6x3=18)**

25. Give the truth table of XOR gate
26. Write down the interfaces and ports available in a computer
27. Differentiate copy and move

28. What is case analysis?
29. Define in array? What are the types?
30. What are the points to be noted while deriving a new class?
31. Differentiate '=' and '=='
32. What are the rules for function overloading?
33. What will be the result of the following program?

```
int year;
cin>>year;
if (year % 100 == 0)
if (year % 400 == 0)
cout<<"Leap";
else
cout<<"Not Leap Year";
```

If the input given is (i) 2000 (ii) 2003 (iii) 2010?

PART - IV

(5x5=25)

Answer all the questions.

34. a) Discuss the various generation of computers **(OR)**
    b) What are the different types of cyber attacks.
35. a) Find 1's complement and 2's complement for the following decimal number: a)-98 b) -135 **(OR)**
    b) Explain the different types of inheritance
36. a) What are the types of Errors? **(OR)**
    b) Write the output of the following program

```
#include<iostream>
using namespace std;
class student
{
int rno, marks;
public:
student(int r,int m)
{
cout<<"Constructor"<<endl;
rno=r;
marks=m;
}
void printdet()
{
marks=marks+30;
cout<<"Name: Bharathi"<<endl;
cout<<"Roll no:"<<rno<<"\n";
cout<<"Marks:"<<marks<<endl;
}
};
Int main()
{
ctudent s(14,70);
s.printdet();
cout<<"Back to Main";
return 0;
}
```

37. a) Explain the different ways of finding a file or folder
    (OR)
    b) Call by value method with a suitable example

38. a) Debug the following program

```
%include(iostream.h)
#include<conio.h>
class (A)
{ public;
int a1,a2,a3;
 void getdata[]
{a1=15, a=13' a3=13;}}
class B: public A()
{PUBLIC
voidfunc()
{int b1,b2,b3;
A: getdata[];
b1=a1;
b2=a2;
a3=a3;
cout<<b1<<"\t"<<b2<<"\t"<<b3;}
void main()
{ B der;
der 1.func();}
```

(OR)

b) Write a note on the basic concepts that supports OOPs