INTERNATIONAL INDIAN SCHOOL, DAMMAM
MODEL EXAMINATION 2012 - 2013

SUB: COMPUTER SCIENCE — MAX MAR
CLASS: XI — TIME: 3 HRS

SET A

Note : All questions are compulsory

1. Define nibble and byte. (1)
2. Distinguish between general purpose and special purpose computer with example. (2)
3. What are the software classifications? Discuss this functioning in brief. (2)
4. Write the Binary equivalent for $(75.625)_{10}$ (1)
5. Convert $(EC3A)_{16}$ to Binary. (1)
6. Expand : (i) EEPROM (ii) ISCII (1)
7. What is the difference between serial and parallel port? (2)
8. Why are logical errors harder to locate? (2)
9. What is meant by free formatting? Why should not it be used in programs? (2)
10. What is a source code? What is an object code? (2)
11. What are the characteristics of a good program? (2)
12. What is the difference between testing and debugging? (2)
13. What are the predefined stream objects in I/O library? (2)
14. What is wrong with the statement : const int y; (1)
15. What is the other name of punctuators? (1)
16. Find the output: (2)

```
a=2;
b=++a;
cout<<a;
cout<<b;
cout<<a++;
cout<<++a;
```

17. What is the result of the following expression if a = 3, b = 0 (1)

```
a >= b && (a + b) > a
```

18. What is the output of the following statement ? (1)

```
char ch = 'a';
ch = (ch = = 'b') ? ch : 'b';
cout<<ch;
```

19. What is the order of evaluation in the following expressions? (1)
    (i) a > 5 && b < c || c < d
    (ii) a < 4 || d > e || !d > 6

20. The following is illegal. Why? How would you correct it?

```
void main ( )
{
        int i = j = k = 0;
}
```

21. Write equivalent C++ expression for $(1 - y^3)^{0.5}$ (1)

22. Construct logical expressions to represent the following conditions: (2)

    (i) donation is in the range 4000 – 5000 or guest is 1.

    (ii) weight is greater than or equal to 115 but less than 125.

23. Define non graphic characters with example. (2)

24. Name the header files in which the following belong: (1)

    (i) puts ( ) ii) isalnum ( )

25. Rewrite the following program after removing the syntactical error (s) if any. Underline each correction. (2)

(i)
```
#include<iostream.h>
int sub(int,int)
void main ( )
{
int n1, n2;
int result;
cin >>n1
cin >>n2;
result = sub(n1);
}
float sub(int m1,int m2)
{
return(m1-m2);
}
```

(ii) (2)
```
#include<iostream.h>
const int MAX 10;
void main ( )
{
        int Numbers[MAX];
        Numbers = {20, 50,10, 30, 40};
        for (Loc = Max – 1;Loc > = 0; Loc--)
         cout << Numbers [Loc];
}
```

26. Find the output of the following programs : (2)

(i)
```
#include <iostream.h>
int x = 10;
void pass(int &a, int b, int &c)
{
int x = 4;
c + = x;
a * = ::x;
b + = c;
}
```

```
void main ( )
{
        int y = 1, x = 2;
        pass(y, ::x, x);
        cout<< x << " : " <<y << " : " << ::x;
        cout << endl;
        pass(::x,x,y);
        cout<< x << " : " << y << " : "<< ::x;
}
```

(ii)

```
#include<iostream.h>
struct Point
{
        int X, Y;
};
void Measure (Point P)
{
        cout<<P.X<<" : "<<P.Y<<endl;
}
void main( )
{
        Point P1 = {10, 20}, P2, P3;
        P3 = P1;
        P1.X + = 10;
        P2 = P3;
        P2.X + =10;
        P2.Y + = 20;
        P3.X - =5;
        Measure(P1);
        Measure(P2);
        Measure(P3);
}
```

(2)

27. Define typedef with example. (2)

28. Differentiate between global variables and local variables with example. (2)

29. Element amount[10] is which element of the array? (1)

30. Write a C++ program for the following:
    a) To check two strings contains equal number of characters or not (without using string functions). (3)
    b) To count number of prime numbers from 1 to n. (3)
    c) To find the sum of: $1 + 1/3^2 + 1/5^2 + \ldots\ldots$ n terms. (3)
    d) To find maximum and minimum value of each column elements of a 2D array. (4)
    e) Write an UDF program sum( ) which receives int x and int n and return the sum of the following: $x + x^2 + x^3 + \ldots..$ n terms. (4)
    f) To search an element using Linear Search and display its position in a 1D array. (4)