INTERNATIONAL INDIAN SCHOOL, DAMMAM
FIRST TERMINAL EXAMINATION 2013-2014

SUB: COMPUTER SCIENCE
CLASS: XI
MAX MARKS: 70
TIME: 3Hrs.

SET A

1. How many bytes are there in one petabyte? 1
2. Name any one super computer developed by India. 1
3. What is utility software? Give two examples. 2
4. How is a compiler different from an interpreter? 2
5. Explain briefly the concept of time sharing. 2
6. What are the functions of the operating system as a resource manager? 2
7. Expand: i) DRAM    ii) EDVAC 1
8. What is the difference between EPROM and EEPROM? 2
10. Convert the following:- 4
    i) \((2345)_{10} = (? )_{16}\)
    ii) \((0100111010001)_{2} = (? )_{10}\)
    iii) \((EB4A)_{16} = (? )_{8}\)
    iv) \((815.125)_{10} = (? )_{2}\)
11. What is the role of main() in a C++ program? 1
12. What is the difference between ‘a’ and “a”? 1
13. What is meant by token? Name the different tokens available in C++. 2
14. Define variable? What are the two values associated with a variable? 2
15. What is a unary operator? Give two examples of unary operator. 2
16. Explain any two types of errors that usually occur while programming. 2
17. Write C++ expressions for the following: 2
    i) \(a^2 + b^2 + c^2\)
    ii) \((X+Y)^2 + (P+Q)^4\)
18. What is the order of evaluation of the following C++ expression?
   
i) a>b&&b<c || c!=d+3
   
   ii) x*y+z%p&%q-r+p++

19. What will be the result of the following C++ expression?
    
    4*5+7*2-8%3+4&&4/2-1+4 || 2-4+6*2

20. Convert the following as directed:
    
i) if-else to switch:
        
        ```cpp
        int x,y,z;
        cin>>x>>y>>z;
        if (x==1)
            cout<<x*y+5;
        else if (x==2)
            cout<<x+2+y;
        else if (x==3)
        {
            z=(x*y*5)/2;
            cout<<z;}
        else cout<<x<<"'"<<y<<"'"<<z;
        ```

   ii) conditional to if-else:
        
        ```cpp
        int val, res, n=1000;
        cin>>val;
        res=n+val>1750?400:200;
        cout<<res;
        ```

21. i) What is the effect of absence of break in a switch statement?

   ii) What do you mean by type casting?

22. Rewrite the following C++ program after removing all the syntax error(s), if any:

   i) #include<iostream.h>
   
   void main()
   {
       Int X, Y;
       cin>>X;
       if X == Y
           cout<<Y+X;
       else
           cout>>Y;
   ```
ii) #include<iostream.h>
   void main()
   {
      int r; w=90;
      w-50=r;
      switch(r)
      {
         case 20: cout<<"Lower Range"<<endl;
                  break;
         case 30: cout<<"Upper Range"<<endl;
      }
      getche();
   }

23. Give the output of the following code:-
   i) void main()
      {
         int x = 5, y = 5;
         cout<<x--;
         cout<<",",;
         cout<<--x;
         cout<<",",;
         cout<<y<<<",","++y;
      }

24. What will be the result of the following expression if
   ans=700, val=300;
   ans-(val<500?150:50)

25. Construct logical expression to represent the following conditions:
   i) either age is more than 70 or members are more than or equal to 8

26. Write a program to input length in centimeter and convert it to equivalent inches and feet.

27. Write a program to swap two numbers without using third variable.

28. Write a program to find the smallest of three numbers using conditional operator.

29. Write a program to check whether a given number is odd or even. If it is even check whether it
    is divisible by 5 and if odd check whether it is divisible by 7.

30. Write a program to calculate and print roots of a quadratic equation \( ax^2+bx+c=0 \) (a!=0).

31. Write a program to calculate area of circle, rectangle or a triangle depending upon user's
    choice.