INDIAN SCHOOL SOHAR
UNIT TEST – I (Session 2018 – 19)
COMPUTER SCIENCE

Class: XI   **Marks: 50**

Date: 22/05/2018   **Duration: 2 hours**

General Instructions:

- *All the questions are compulsory*
- *Answer the questions carefully after reading the questions and write question numbers correctly*

1.	Which header file is used for using cout and cin in a C++ program?	1
2.	How many bits are there in 1 Byte?	1
3.	_____ operator is known as statement termination operator.	1
4.	Which operator is a conditional operator?	1
5.	An equal to (=) sign is known as _____ operator	1
6.	Which built – in function is used to clear the output screen?	1
7.	Name the different number systems in computer system.	2
8.	What are variables in a C++ program? Give suitable examples for variables.	2
9.	What are the rules for defining a variable?	2
10.	Which are the different types of error messages in a C++ program? Explain them	2
11.	Explain modulo operator with an appropriate program example.	2
12.	Explain the concept of typecasting with appropriate examples.	2
13.	What is the base of different number system?	2
14.	Explain increment and decrement operator with example.	2
15.	Justify the importance of comments in a C++ program and explain types of comments.	2
16.	What are keywords in a C++ program? List any four keywords.	2
17.	Explain the usage of endl using example.	2
18.	Convert Decimal number to equivalent Binary number. Illustrate the conversion.	2

    a. $(97)_{10}$ b. $(214)_{10}$

19.	Convert Binary number to equivalent Hexadecimal number. Illustrate the conversion.	2

    a. $(111011)_2$ b. $(100001110)_2$

20.	Convert Octal number to equivalent Binary number. Illustrate the conversion.	2

    a. $(644)_8$ b. $(471)_8$

21. Convert Hexadecimal number to equivalent Octal number. Illustrate the conversion.   2

   a. $(2AC)_{16}$ b. $(FF)_8$

22. Write a program which takes user input for number of hours worked in a week, overtime hours in a week and rate per hour for a person. Calculate the total payment given to the person   2

23. Write a program which takes user input for a 4 digit number and finds the sum of all the digits of the number.   2

24. Write a program which takes user input for basic salary of the employee and calculate total salary of the employee where total salary is calculated by addition of basic salary, HRA and DA. (HRA is Rs. 8500 and DA is 22.5% of Basic).   2

25. Write a program which takes user input for 2 numbers in 2 variables and interchange the value of both variables.   2

26. Write the output of the following program: 2

```cpp
#include <iostream.h>
#include <conio.h>
void main()
{
    int a = 47, b = 7, c=0;

    c=a%b;
    a += a%b;
    b -= a%b;
    cout << " a = " << a << " and b =" << b;
}
```

27. Write the output of the following program: 2

```cpp
#include <iostream.h>
#include <conio.h>
void main()
{
    int n1 = -2, b = 3, n2 = 0, n3 = 0, n4 = 0;
    n2 = ++n1 + b++;
    n3 = ++b - ++n1;
    n4 = n1++ * ++b;
    cout << "n1 = " << n1 << '\n'
```

```cpp
            << "n2 = " << n2 << '\n'

            << "n3 = " << n3 << '\n'

            << "n4 = " << n4 << '\n';

    }
```

28.   Find the syntax error in the code and rewrite the correct code of the program.   2

```cpp
#include <iostream.h>

#include <conio.h>

void main()

{

        INT maths_marks, eng_marks, total, percent%;

        cout << \nMaths marks: ;

        cin >> maths_marks;

        cout << "\nEnglish marks: ";

        cin << eng_marks;

        total = maths_marks + eng_marks;

        percent = total/2;

}
```