O. P. JINDAL SCHOOL, SAVITRI NAGAR

Half Yearly Examination (2018 – 2019)

Class: XI

Subject: Computer Science

MM : 70

Time: 3 Hrs.

General Instructions:

- *Please check that this question paper contains 03 printed pages.*
- *Please check that this question paper contains 05 questions.*
- *Fifteen Minutes Extra time has been allotted to read the Question Paper.*
- *All questions are compulsory.*

Q1. (a) What is the purpose of header file in C++ program. (1)

(b) Name the header files, to which following inbuilt function belong to: (2)

i) fabs( ) ii) setprecision( ) iii) exit( ) iv) cerr( )

(c) What do you mean by implicit and explicit conversion? Explain with example the suitable C++ example. (2)

(d) Find the error from the following code segment and rewrite the corrected code underlining the correction made.(Underline at least four mistakes) (2)

```
# include(iostream.h)
Include<conio.h>
void main ( )
int X,Y;
cin>>>X;
for(Y=0,Y<10, Y++)
if X= =Y
cout<<Y+X;
else
cout>>Y; }
```

(e) Predict and correct the logical error present in the following code fragment: (1)

```
if(a=1)

cout<<"HI.....";
else
cout<<" Hello";
```

(f) What do you mean by lvalue and rvalue ? (1)

Q2.(a) What will be the result of following two expressions if j=10 initially. (2)

i) ++ j<=10 ii) j++<=10

(b) What is the difference between Modular Programming and Procedural Programming? (2)

(c) Write a C++ program to input a number if the number is even ,print its cube else print square of it.   (2)

(d) Which are the following valid identifiers and why/why not   (2)

      MY_file, cout , pr.area, data_1 , Int , float , _amt

(e) What are Pre and Post increment operators? Give example   (2)

(f) Write a program to input the temperature in Fahrenheit and calculate its Celsius.   (2)

Q3.(a)What is a reference variable? What is its usage.   (2)

(b)What is the Precedence of Operators? Give Example.   (2)

(c)What will be the value of following, if j=5 initially.   (2)

      i) (5*++j)   ii) (5* j++) %6

(d)Given that k=20, what will be the result of the following expression?   (2)

      i) j=++k + 2*k   ii) j= k++ * 5

(e) Evaluate the following, where p, q are integers and r, f are floating point numbers.   (2)

The value of p=8 and q=4

      (i) f = p * q + p/q

      (ii) r = p+q + p % q

(f) What do you mean by system and application software? Explain the function of each?   (3)

Q4. (a)What are the types of computers? How do they differ?   (3)

(b) What is the result of the following expression?   (1)

      If x=2 & y=3, then

      (i) x>y ? cout<<x : cout<<y;

(c) Write a program to calculate the average and percentage of 5 subjects.   (2)

(d)What are the main types of C++ data types? Give example of each.   (2)

(e)Write a C++ program to calculate Simple Interest and Compound Interest.   (2)

(f)Write a program to check the entered input is in lowercase or uppercase or any digit.   (2)

Q5.(a) Convert the followings. (5)

i) $(12.45)_{10}$ = ( )$_2$

ii) $(347)_8$ = ( )$_{10}$

iii) $(896)_{16}$ = ( )$_8$

iv) $(100)_{10}$ = ( )$_8$

v) $(256)_{10}$ =( )$_{16}$

(b) What is Runtime , Syntax and Sematic error? Explain with an example. (3)

(c) What are operators? Explain all the operators with valid C++ statements. (3)

(d) What is Token? Explain it's all the types. (3)

(e) Explain the following terms: (3 X 2 = 6)

    i) Data hiding   ii) Encapsulation   iii) Polymorphism

(f) Find one's complement in 8 bit. (2)

    i) -200   ii) -83

(g) Find two's complement in 8 bit (2)

    i) -156   ii) -67

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