V & C PATEL ENGLISH SCHOOL, V.V.NAGAR
Session Ending Examination 2017-18
Class- XI
Subject- Computer Science

Time Allowed: - 3 Hrs.   MM: - 70

Note: - 1. All Questions are compulsory to attempt.   Date:- 12-3-18

Q-1

a) Explain briefly the major innovations of:-
   i)   First Generation
   ii)   Second Generation
   iii) Third Generation   3
b) What are the functions of an operating system?   1
c) Express (-13) in 2's complement form.   1
d) Write full form of ASCII and ISCII.   1
e) Convert the following:-   4

   a) $(22.25)_{10} = (?)_2$ b) $(423)_{10} = (?)_{16}$

   c) $(EB4A)_{16} = (?)_{10}$ d) $(B2F)_{16} = (?)_8$

f) What is the different between RAM and ROM?   2

Q-2

a) What is meant by free formatting? Why should not it be used in programs?   2
b) Mention the steps you would follow while writing a program.   2
c) Draw a flowchart to find the sum of two numbers.   4
d) What is meant by logical error and syntax error in a program?   2

Q-3

a) What is the significance of null (\0) character in a string?   1
b) Explain the role and importance of file *iostream.h* in C++.   4
c) What is a reference variable? What is its usage?   2
d) How is structure different from an array?   2
e) Consider the following two C++ statements are they equivalent   2

   Char grade = 65;
   Char grade = 'A';

f) Evaluate the following C++ expressions where a, b, c are integers and d, f are
   floating point numbers. The value of a=5, b=3, d=1.5.   5

   a) f = a + b / a
   b) c = d * a + b
   c) c = (a++) * d + a
   d) f = (++b) * b – a
   e) c = a – (b++) * (--a)

Q-4

1) Correct the following code so that it is functional : 2

```
Value = 4 ;
do ;
{
    Total += value ;
    Cout<< total ;
while value <=8 ;
```

2) .... function compares two strings and returns less than zero
value. 1

3) ....is a character function which checks whether its argument is a
digit or not 1

4) What is standard library? 1

5) Why is C++ standard library needed? 1

6) What is the use of constant arguments? 1

7) Differentiate between CALL by reference and CALL by value. 2

8) Explain the output of the following program : 3

```
#include<iostream.h>
Int &max(int &x, int &y)
{
    If (x > y)
            return (x) ;
    else
            return (y) ;
}
Void main ()
{
    int A= 10,  B= 13;
    max(A, B) = -1;
    cout << "A =" << A << "B =" << B << end1;
    max (B, A) = 7;
    cout << "A =" << A ++ << "B =" << B -- << end1;
    max(A, B) = 3;
    cout << "A =" << A << "B =" << B << end1;
}
```

9) What is an array? What are the needs to declare an array? 2

10) How is 1-D arrays represented in memory? Explain with example. 3

11) The matrix is named as Scores: 2

86	75	95
67	88	93
95	79	83
86	98	82
74	68	90

What is stored in each of the following cells?

Score   [0]   [0]   =   _____

Score   [2]   [1]   =   _____

Score   [3]   [2]   =   _____

Score   [5]   [2]   =   _____

12) What is a structure? Declare a structure in C++ with name, roll no. and total marks as components.   2

13) What are Nested Structures? Give an example.   2

14) How are related Structures and classes?   2

15) You can assign one structure variable to another, provided they are of same type. True or false?   1

16) Rewrite the following program after removing syntactical error(s), if any. Underline each correction.   3

```
#include<iostream.h>
        void main( )
            {  struct movie
                {
                        char movie_name[20];
                        char movie_type;
                        char ticket_cost=100;
                } MOVIE;
            gets(movie_name);
            gets(movie_type);sa +6
            }
```

17) Write a C++ program that invokes a function calc ( ) which intakes two integers and any two an arithmetic operator and prints the corresponding result.   3

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