**D.A.V. Centenary Public School, Chander Nagar**

**Class**: XII ( Computer Science ) **Unit Test**-II **M.M**:30

**Note:** All questions are compulsory

Programming Language is C++

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| Q1 | A | Explain Local functions and global functions with some suitable examples | 3 |
|  | B | Find out the output of the following C++ program segment  #include<iostream.h>  int func(int &x, int y=10){ {  if(x%y= =0) return ++x; else return y--; }  int main(){  int p=20, q=23;  q=func(p,q);  cout<<p<<q<<endl;  p=func(q);  cout<<p<<q<<endl;  q=func(p);  cout<<p<<q<<endl;  } | 2 |
|  | C | Find out the output of the following program segment  int a=40;  void PASS(int &x, int y, int &z) {  int a=5;  z+=a;  x\*=**::**a;  y+=z; }  int main( )  { int a=30, b=20;  PASS(b,**::**a,a);  cout<<a<<”-”<<b<<”-“<<**::**a<<endl;  PASS(**::**a,a,b);  cout<<a<<”-”<<b<<”-“<<**::**a<<endl; return 0; } | 2 |
|  | D | The following C++ program has some syntax error(s). Underline each such syntax error and also provide us the correct version  include <iostream.h>  int main ( ) {  int P [ ] = {90, 10, 24, 15}; Q, Number = 4;  Q = 9;  for[ int I= Number -1; I > =0, I - -]  switch (I){  case 0:  case 3: cout >> P[I] \*Q <<endl; break;  case 1:  case 2: cout << P[I] + Q; }  return 0; } | 2 |
|  | E | Differentiate between call by value and call by reference with some suitable example | 3 |
| Q2 | A | Find out valid and invalid array declaration | 1 |
|  | B | What is the pre-condition for applying binary search method on any array | 1 |
|  | C | Convert the following infix expression into postfix expression using stack  Exp = a+b^c/d\*e-f | 3 |
|  | D | Anushka is trying to arrange an array of integer using insertion sort method. Show the array status after each iteration. The array is as follow. 12,5,4,10,2,7 | 3 |
| Q3 | A | Write a function in C++ to swap( ) that accept an array of integer and its size as its parameter. Swap the values of first half with second half.  Example:  1,2,3,4,5,6,7,8,9,10  After swaping the values are :  6,7,8,9,10,1,2,3,4,5 | 2 |
|  | B | Write a function in C++ to merge() that receive following parameters. A) first array A and its size M, ii) Second array B and its size N iii) final array C  Array A is arranged in ascending order while array B is arranged in descending order. Your final array must be arranged in ascending order. | 4 |
|  | C | Write a menu driven program in C++ to implement array generated linear Queue. | 4 |