**CS-1004 OOP (CS – A&B) Quiz # 3 [25 marks]**

**Time = 25 minutes Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Roll No: \_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. Which of the following is FALSE about classes?
   1. A class is defined using **class** Keyword.
   2. Have a body delineated with braces **{}.**
   3. Public and Private data can be accessed anywhere in code.
   4. Default mode is private.
2. If a member function of a class is defined outside the class \_\_\_\_\_\_\_ operator is needed.
   1. >
   2. .
   3. ::
   4. <
3. Which of the following statement is **FALSE** about constructor of a class?
   1. Initialize class members
   2. Same name as the class
   3. Can be called explicitly
   4. No return type
4. What is output of following codes

a. char str[] = "What an interesting world we live in!";

char \* ptr = &str;

cout<<"1:"<<ptr[5]<<endl;

cout<<"2:"<<\*ptr<<endl;

cout<<"3:"<<++ptr<<endl;

cout<<"4:"<<++(\*str)<<endl;

cout<<"5:"<<str + 5<<endl;

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b. int\* mystery(int\* p){

int i;

for (i = 0; i < 2; i++) {

int temp = \*(p + i);

\*(p + i) = \*(p + 4 - i);

\*(p + 4 - i) = temp;

}

return p;

}

int main(){

int x[5] = { 1, 2, 3, 4, 5 };

int i, \*p;

p = mystery (x);

for (i = 0; i < 5; i++)

cout << \*(p + i) << " ";

return 0;}

5. In this question, you are required to implement the DrawPattern function recursively. There will be no marks if the code contains any loop(s). The function should draw a V-shaped pattern for any given value of N.

|  |  |
| --- | --- |
| For N=4, the pattern should be:  x........x  .x......x.  ..x....x..  ...x..x...  ....xx.... | For N = 5, the pattern should be:  x..........x  .x........x.  ..x......x..  ...x....x...  ....x..x....  .....xx..... |