Q1/ Draw the flowcharts and write complete algorithms for the following problems: (only two) (5 marks)

a- Fibonacci series (0-1-1-2-3-5-8-13-21).

b- Test prime number or not.

c- Calculate area of circle.

Q2/ Answer (only two) (5 marks)

a- c-find the output

main()
{
    int x=0;
    x+=x+x-++x+ x+x;
    cout<<x;
}

b- b-find the output

main()
{
    int x=2;
    cout<<x;
    x=2;
    x=x&x;
    cout<<x;
    x+=x&x &x &x;
    cout<<x;

}

c- Convert to C++ expression and find priority of the following equation and write complete program.

\[ Z=\frac{\text{power}((\sin(x),2)+\text{Ln}(x))}{\text{div} 2\tan(x)} \]

Q3/ Answer (only two) (10 marks)

a- Draw electronic circle and convert to program in C++ to the following equation.

\[ \text{Not}(a) \text{ and } (a) \text{ and}(a) \text{ Xor}(a) \]

b- Write complete program in C++ to convert number form decimal to binary number and print in order right.

c- Find the output:

main()
{
    int a=2;
    a>>1;
    a<<1;
    cout<<a;
    a=a^2;

}
a=1a;
cout<<a;
}

Q4/ Answer (only two) (10 marks)

a-Correct and find output

Main()
I=2 int
for(cin>>I,i<>10,i++)
cout<<"*"

b-Find output

main()
{ int i=2;
  for(cin>>i;i<>10;i++)
    {
      cout<<"*";
      cin>>i;
      i=0;
    }
  }

Q5/ Write complete program in C++ for the following cases (only two) (10 marks)

a- Overloading functions.

b- Inline function.

c- Prototype in function design.

Q6/ Write complete program in C++ for the following cases (only two) (10 marks)

a- By using pointer, sort array 1-D (Ascending).

b- Pass by reference to function from main program swap two values

c- 

Lecture

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