**ASSIGNMENT-5(C++)**

Q1) WAP to design a calculator using switch case implement functions for sum ,sub, etc…

# include <iostream>

using namespace std;

int main()

{

char op;

float num1, num2;

cout << "Enter operator: ";

cin >> op;

cout << "Enter two operands: ";

cin >> num1 >> num2;

switch(op)

{

case '+':

cout << num1+num2;

break;

case '-':

cout << num1-num2;

break;

case '\*':

cout << num1\*num2;

break;

case '/':

cout << num1/num2;

break;

default:

cout <<"Error";

break;

}

return 0;

}

Q2) WAP to reverse a number using function with parameters

#include <iostream>

using namespace std;

class Reverse

{

int reverse=0, rem;

public: void generate(int num)

{

cout<<"Number is:\t";

while(num>0)

{

rem=num%10;

reverse=reverse\*10+rem;

num/=10;

}

cout<<"Reversed Number: "<<reverse<<endl;

}};

int main()

{

Reverse R;

R.generate(456);

return 0;

}

Q3) WAP to calculate power of any base using function and return the value.

#include<iostream>

using namespace std;

class Power

{

public:

int power(int x, unsigned int y)

{

if (y == 0)

return 1;

else if (y % 2 == 0)

return power(x, y / 2) \* power(x, y / 2);

else

return x \* power(x, y / 2) \* power(x, y / 2);

}

};

int main()

{

Power p;

int x = 2;

unsigned int y = 3;

cout << p.power(x, y);

return 0;

}

Q4) WAP to find the avg of five numbers using function and then return the avg value to check whether avg is greater than 100 or not

#include <iostream>

using namespace std;

class Average

{

int n1,n2,n3,n4,n5,i;

float sum, average;

public: void find()

{

cout << "Enter the 5 numbers : ";

cin >>n1>>n2>>n3>>n4>>n5;

sum=n1+n2+n3+n4+n5;

average=sum/5;

cout<<"Average:\t"<<average<<endl;

}

public: void check()

{

if(average>100)

{

cout<<"Average is Greater than 100:";

}

else{

cout<<"Average is less than 100:";

}}};

int main()

{

Average a;

a.find();

a.check();

return 0;

}

Q5) WAP to implement even/odd , positive/negative using functions.

#include<iostream>

using namespace std;

class Check

{

int num;

public: void implement()

{

cout<<"Enter the Number:"<<endl;

cin>>num;

if(num>0)

{

cout<<"Positive number:"<<endl;}

else

{

cout<<"Number is Negative:"<<endl;

}}

public: void implement2()

{

if(num/2==0)

{

cout<<"Number is Even:"<<endl;

}

else

{

cout<<"Number is Odd:"<<endl;

}}};

int main()

{

Check c;

c.implement();

c.implement2();

}

Q6) WAP to find the length of a string.

#include<iostream>

using namespace std;

class Length

{

public: void find()

{

string str = "C++ Program ";

cout << "String Length = " << str.size();

}};

int main()

{

Length L;

L.find();

return 0;

}

Q8)WAP to convert a string into int using predefined function,

#include <iostream>

#include <string>

using namespace std;

class Convert

{

string str = "1235252";

int num;

public: void convert()

{

num =stoi(str);

cout << num;

}};

int main()

{

Convert c;

c.convert();

return 0;

}

Q9)WAP to find the address of any variable. Q10)WAP to add two pointer values.