Give the output and determine how many times the loop will execute: x=1;

y=1;

while(x<=y) { y = y/x; System.out.println(y); }

sol:-

x=1;

y=1;

y = y/x; y=1/1

y always =1

Ans:-Infine

2.Analyze the given program segment and answer the following questions:

for(int i=3;i<=4;i++)

{

for(int j=2;j<i;j++) {

System.out.print(“ ”); }

System.out.printlin(“WIN”); }

Ans:-Blank

WIN

Blank

Blank

WIN

3:- Analyse the following program segment and determine how many times the loop will be

executed and what will be the output of the program segment.

int k=1, i=2;

while (++i<6) k\*=i;

System.out.println(k);

Ans:- The loop executes 3 times.

Output: 60

4:- 4.How many times will the following loop execute? What value will be returned?

int x = 2, y = 50; do

{

++x; y- = x++; }

while(x <= 10); return y;

Ans:- The loop will execute 5 times.

Value returned is 15.

5:- 5.What is the final value of ctr after the iteration process given below, executes?

int ctr = 0;

for (int i = 1 ; i < = 5 ; i++) for (int j = 1 ; j < = 5 ; j+=2) ++ctr;

Ans:- The final value of ctr is 15.

The outer loop executes 5 times. For each iteration of outer loop, the inner loop executes 3 times.

So the statement ++ctr; is executed a total of 5 x 3 = 15 times.

6:- 6. Rewrite the following program segment using if-else statements instead of the ternary

operator.

String grade=(mark>=90) ? “A” : (mark>=80) ? “B” : “C”;

Ans:-var mark:number;

if (mark >=90){

Console.log(“A”);

}

Else if (mark >=80){

Console.log(“B”);

}

else{

Console.log(“C”);

};

7.Write the output of the following code segment: char ch; int x = 97;

do {

ch = (char)x;

System.out.print(ch+“ ”); if(x%10==0)

break; ++x; }

while(x<=100);

Ans:- a,b,c,d

8.Analyse the following program segment and determine how many times the loop will be

executed and what will be the output of the program segment?

int p=200;

while(true) {

if(p<100) break; p=p-20; }

System.out.println(p);

Ans:- loop :- 6 times

Output:-80

9:- 9. Rewrite the following using ternary operator:

if (bill >10000 )

discount = bill \* 10.0/100;

else

discount = bill \* 5.0/100;

Ans:- discount=bill > 10000? bill \*10/100 : bill \*5.0/100;

Convert the following if else if construct into switch case if( var==1)

System.out.println(“good”); else if(var==2)

System.out.println(“better”); else if(var==3)

System.out.println(“best”); else

System.out.println(“invalid”);

Ans:-