

**Ahsanullah University of Science and Technology (AUST)**

**Department of Computer Science and Engineering**

**Course No. : CSE2202**

**Course Title : Numerical Methods Lab**

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**Section : A2**

Online 1:Implementation of Bisection Method

class bisection{

static final float EPSILON = (float)0.01;

static double func(double x)

{

return x\*x\*x - x\*x + 2;

}

static void bisection(double a, double b)

{

if (func(a) \* func(b) >= 0)

{

System.out.println("You have not assumed"

+ " right a and b");

return;

}

double c = a;

while ((b-a) >= EPSILON)

{

c = (a+b)/2;

if (func(c) == 0.0)

break;

else if (func(c)\*func(a) < 0)

b = c;

else

a = c; }

System.out.printf("The value of root is : %.4f"

,c); }

public static void main(String[] args)

{

double a =-200, b = 300;

bisection(a, b);

}

}