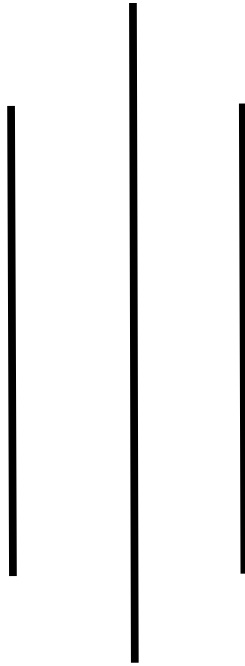


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Simulation and Modelling Practical

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Date:

i	p	d	s
0	-0.5333	28.0000	28.0000
1	0.3827	0.5200	0.5200
2	0.3552	1.3444	1.3444
3	0.3560	1.3197	1.3197
4	0.3560	1.3204	1.3204
5	0.3560	1.3204	1.3204
6	0.3560	1.3204	1.3204
7	0.3560	1.3204	1.3204
8	0.3560	1.3204	1.3204
9	0.3560	1.3204	1.3204
10	0.3560	1.3204	1.3204
11	0.3560	1.3204	1.3204
12	0.3560	1.3204	1.3204
13	0.3560	1.3204	1.3204
14	0.3560	1.3204	1.3204
15	0.3560	1.3204	1.3204
16	0.3560	1.3204	1.3204
17	0.3560	1.3204	1.3204
18	0.3560	1.3204	1.3204
19	0.3560	1.3204	1.3204

b) Model 2

Program:

```
#include<stdio.h>
```

```
int main()
```

{

```
int a=10,i;
```

```
float p=5,b=0.9,c=-2.4,d=1.2,s,dem;
```

[illegible]

```
printf("\n-----");
```

```
for(i=0;i<20;i++){
```

```
s=c+d*p;
```

```
dem=s;
```

```
p=((float)a-dem)/b;
```

```
printf("\n%d\t%.2f\t\t\t%.2f\t\t\t%.2f",i,p,dem,s);
```

}

```
return 0;
```

}

Output:

i	p	d	s
0	7.11	3.60	3.60
1	4.30	6.13	6.13
2	8.05	2.76	2.76
3	3.05	7.26	7.26
4	9.72	1.25	1.25
5	0.82	9.26	9.26
6	12.68	-1.41	-1.41
7	-3.13	12.82	12.82
8	17.95	-6.16	-6.16
9	-10.16	19.15	19.15
10	27.33	-14.59	-14.59
11	-22.66	30.39	30.39
12	43.99	-29.59	-29.59
13	-44.87	50.39	50.39
14	73.61	-56.25	-56.25
15	-84.37	85.93	85.93
16	126.27	-103.64	-103.64
17	-154.58	149.12	149.12
18	219.88	-187.90	-187.90
19	-279.40	261.46	261.46

Conclusion:

Hence by above output we can say that model 1 is stable but model 2 is not stable.