In [36]:
```
import math
e = 4.80*pow(10, -10)
c = 3.00*pow(10,10)
m_e = 9.11*pow(10, -28)
z = 2.00
g_0 = 2
f = 0.4164
tau = 6.265*pow(10,8)
v_0 = 2.46607*pow(10,15)
x= 0.1
n_h = 0.1
pie = 3.14
d1= pow(10, 14)
d2 = pow(10, 18)
d3= pow(10, 21)
v = 2.46771*pow(10,15)
```

In [61]:
```
v = 2.46771*pow(10,15)
print(v)
```

```
2467710000000000.0
```

In [37]:
```
k1= e*e*f*n_h/4*pie*m_e*c
print(k1)
```

```
2.058270663168e-37
```

In [38]:
```
k2 =(1-x)*g_0/z
print(k2)
```

```
0.9
```

In [39]:
```
k3= k1*k2
print(k3)
```

```
1.8524435968512e-37
```

In [89]:
```
k4= tau/((v-v_0)*(v-v_0)+ (tau/4*pie)*(tau/4*pie))
print(k4)
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
<ipython-input-89-5416df215190> in <module>
      1 k4= tau/((v-v_0)*(v-v_0)+ (tau/4*pie)*(tau/4*pie))
----> 2 print(k4)

TypeError: 'float' object is not callable
```

In [41]:
```
a = k3*k4
print(a)
```

```
4.314975494724473e-53
```

In [88]:
```
a = k3*k4
print(a)
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
<ipython-input-88-b8a51ec34bd6> in <module>
      1 a = k3*k4
----> 2 print(a)

TypeError: 'float' object is not callable
```

In [85]:
```
import decimal
decimal.getcontext().prec = 100
p= pow(decimal.Decimal(math.e), decimal.Decimal(d1))
```

```
---------------------------------------------------------------------------
Overflow                                  Traceback (most recent call last)
<ipython-input-85-01b999cd3d66> in <module>
      1 import decimal
      2 decimal.getcontext().prec = 100
----> 3 p= pow(decimal.Decimal(math.e), decimal.Decimal(d1))

Overflow: [<class 'decimal.Overflow'>]
```

In [90]:
```
q= pow(1/math.e, a)
```

In [91]:
```
h = pow(math.e, d1)
```

```
---------------------------------------------------------------------------
OverflowError                             Traceback (most recent call last)
<ipython-input-91-d49668fcf7fb> in <module>
----> 1 h = pow(math.e, d1)

OverflowError: (34, 'Result too large')
```

In [44]:
```
import decimal
decimal.getcontext().prec = 100
a=  decimal.Decimal(4.314975494724473e-53)
d1= pow(10, 14)
I = pow(math.e, (a)*d1)

print(I)
```

```
---------------------------------------------------------------------------
OverflowError                             Traceback (most recent call last)
<ipython-input-44-259ae206555a> in <module>
      1 a=  1.2824926278743013e+36
      2 d1= pow(10, 14)
----> 3 I = pow(math.e, (a)*d1)
      4
      5 print(I)

OverflowError: (34, 'Result too large')
```

In [66]:
```

d1= pow(10, 14)
I = math.exp(-(k3*k4)*d1)

print(I)
```

```
1.0
```

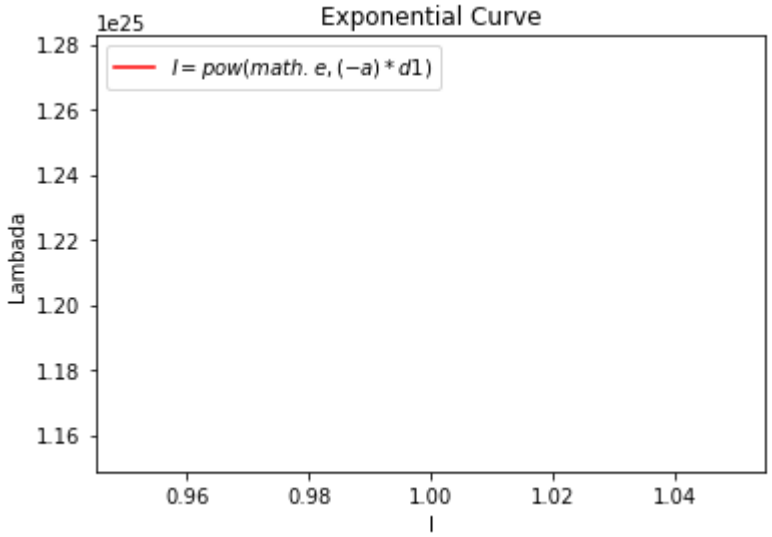
In [68]:
```
x1= math.exp(k4)
print(x1)
```

```
1.0000000000000002
```

In [81]:
```
import matplotlib.pyplot as plt
plt.plot(I,lambada,'r-',label = r'$I = pow(math.e, (-a)*d1)$')

plt.xlabel('I')
plt.ylabel('Lambada')
plt.title('Exponential Curve')
plt.legend(loc='upper left')

plt.show()
```



In [74]:
```
x = int(math.exp(k3))
print(x)
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
<ipython-input-74-8a268154993d> in <module>
      1 x = int(math.exp(k3))
----> 2 print(x)

TypeError: 'float' object is not callable
```

In [82]:
```
import decimal
lambada = 3.00*pow(10,10)/2.46771*pow(10,15)
print(decimal.Decimal(lambada))
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
<ipython-input-82-ef6d17c9ea74> in <module>
      1 import decimal
      2 lambada = 3.00*pow(10,10)/2.46771*pow(10,15)
----> 3 print(decimal.Decimal(lambada))

TypeError: 'float' object is not callable
```

In [ ]:

In [ ]:

In [ ]: