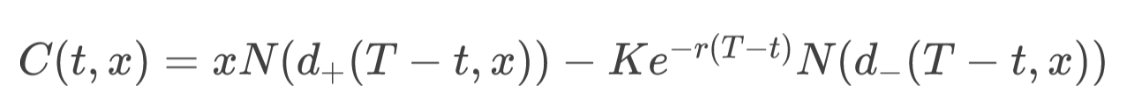
MA374 – Financial Engineering Laboratory

Lab – 07

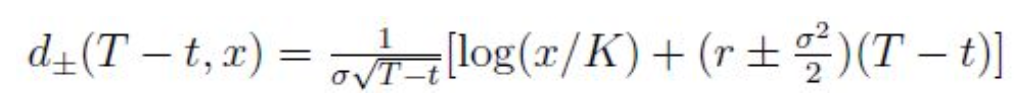
Dipanshu Goyal 210123083

# Ques – 1

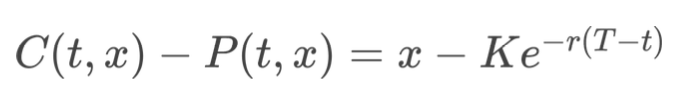
The formula for price of European Call Option is: -



where,

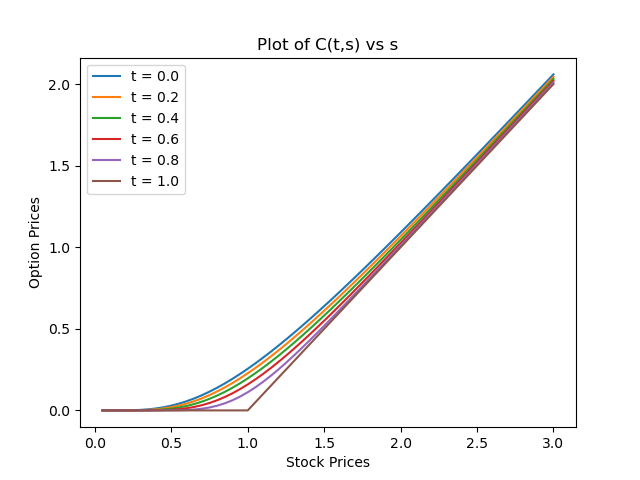


For the European Put Option, we use the put call parity which is given by: -

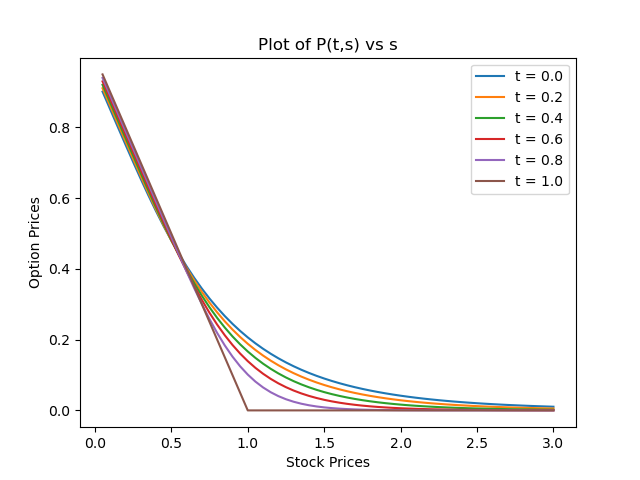


# Ques – 2

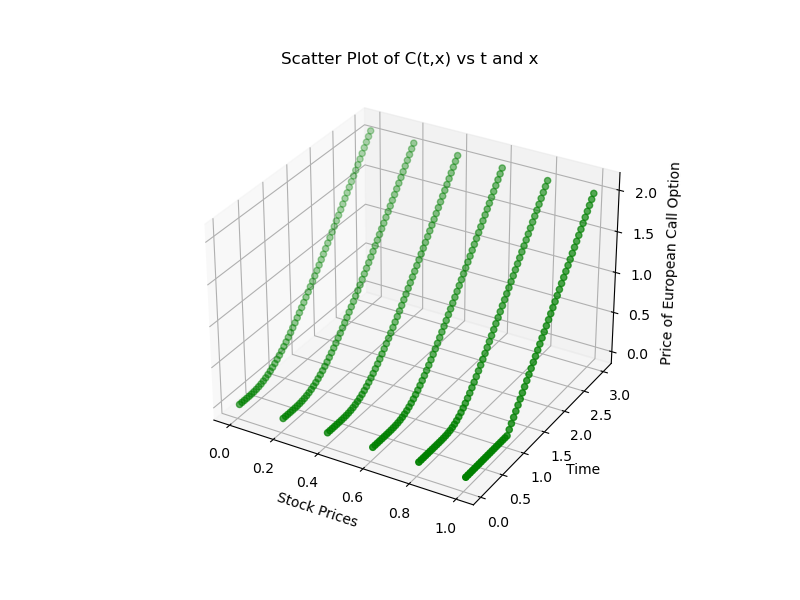
C(t,s) vs s for given time points: -



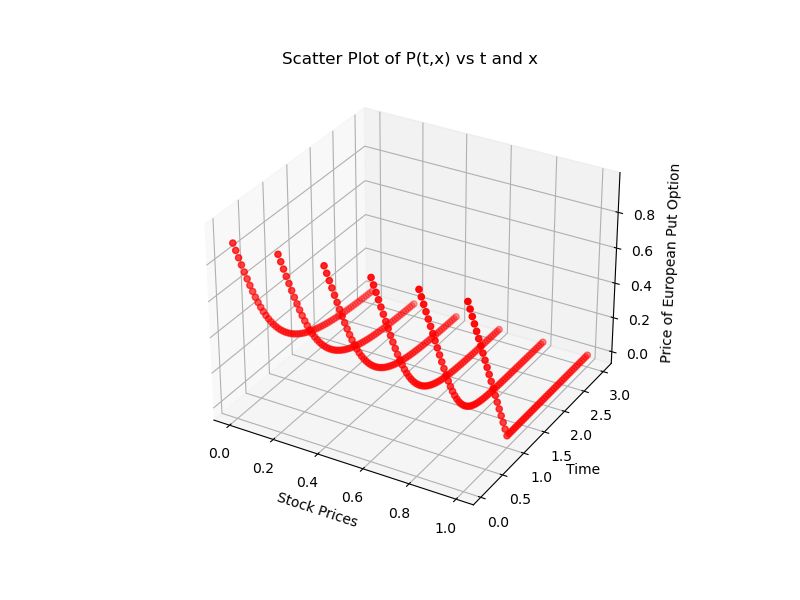
P(t,s) vs s for given time points: -



C(t,s) vs both t and s for given time points: -

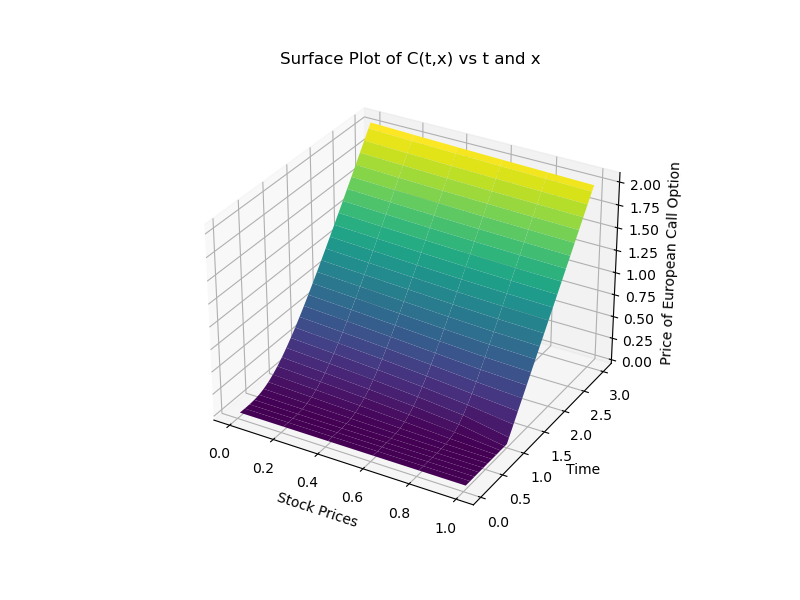


P(t,s) vs both s and t for given time points: -

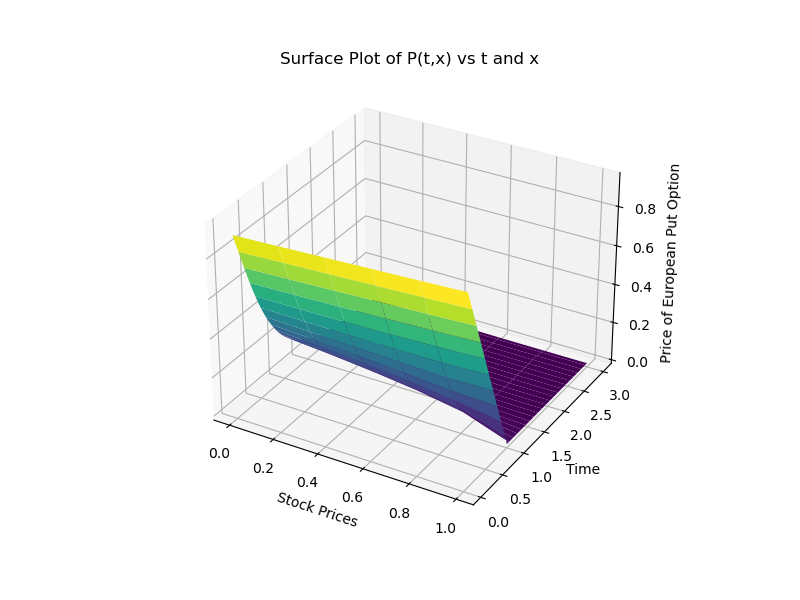


# Ques – 3

C(t,s) as a smooth surface: -

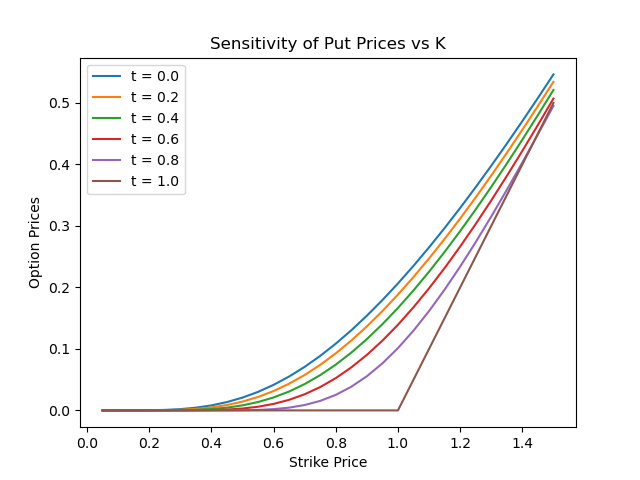
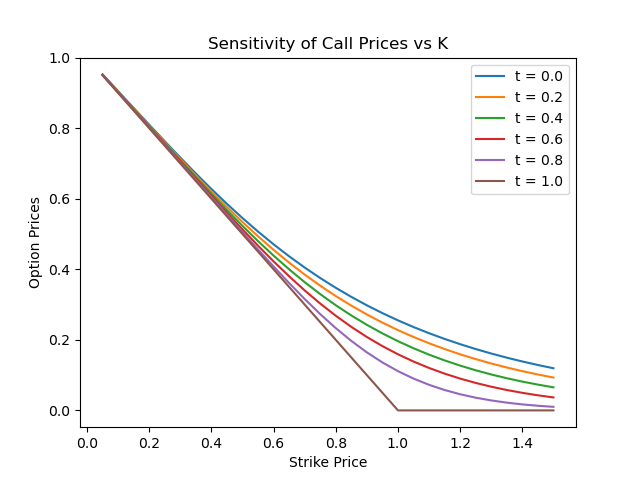


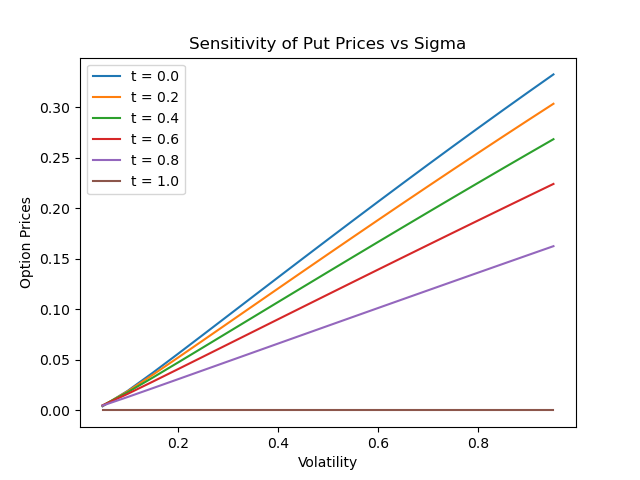
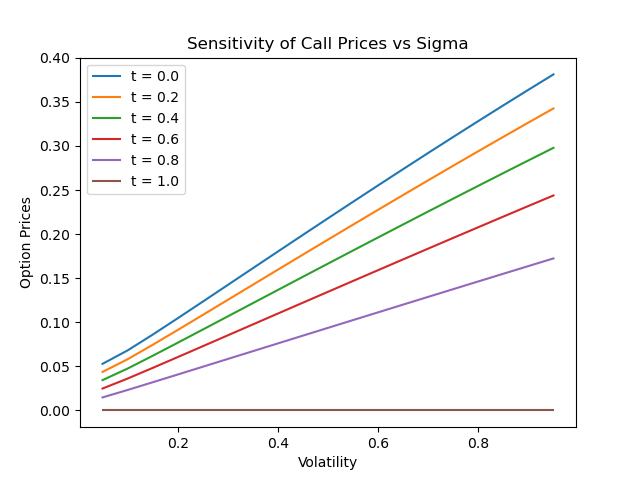
P(t,s) as a smooth surface: -

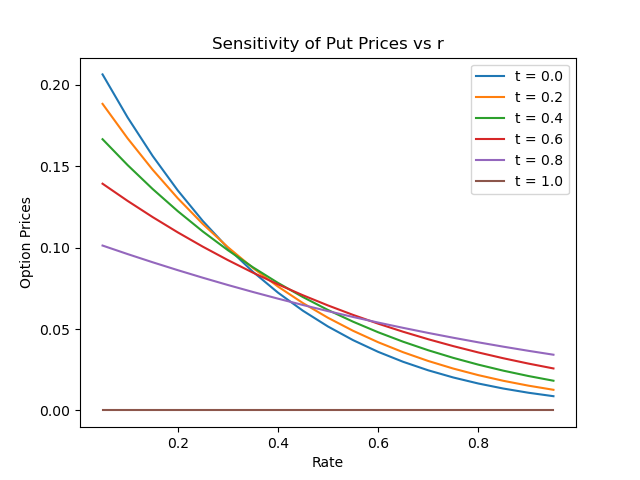
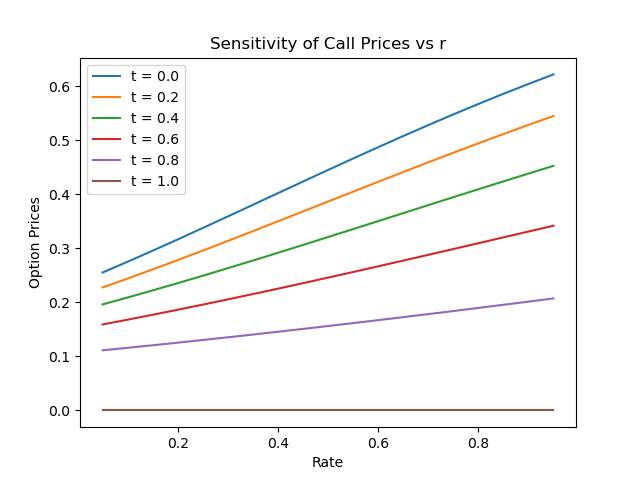


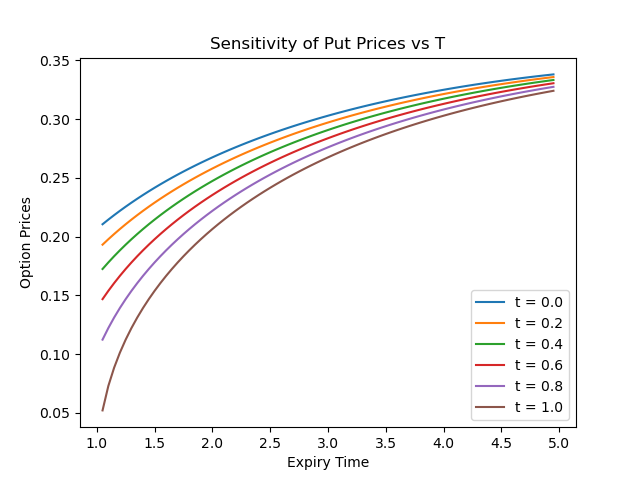
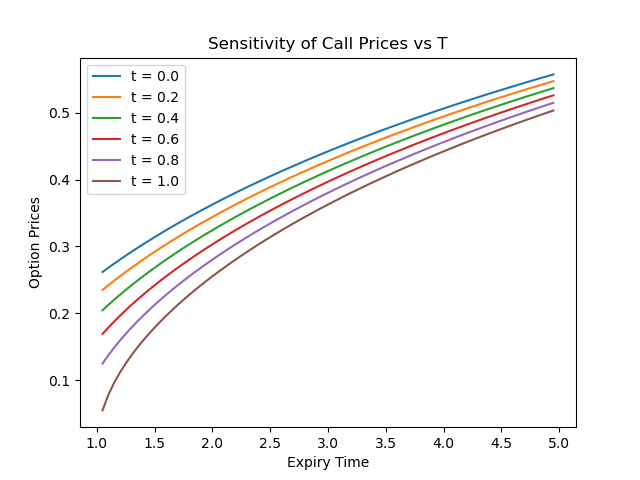
# Ques – 4

The sensitivity of call and put prices with different factors one at a time can be visualized as follows: -









The sensitivity of call and put prices with different factors two at a time can be visualized as follows: -

