LAB REPORT

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Question No: 01

The formula used to calculate Call option price is :

$$c(t,x) = xN(d_+(T-t,x)) - Ke^{-r(T-t)}N(d_-(T-t,x))$$

$$where \; d_\pm(T-t,x) = \frac{1}{\sigma\sqrt{T-t}}[\log(x/K) + (r \pm \tfrac{\sigma^2}{2})(T-t)]$$
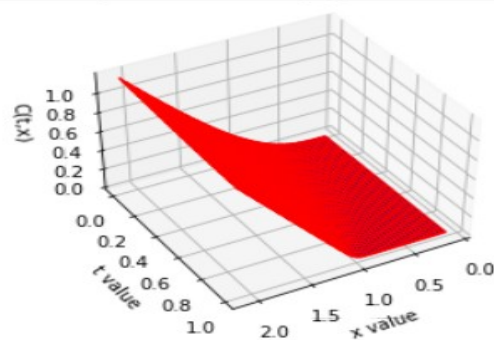
Put option price was calculated with the put call parity as:
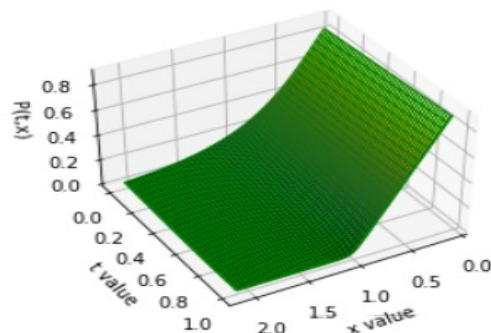
$$c(t,x) - p(t,x) = x - Ke^{-r(T-t)}$$

Question No: 02

We saw that the the call option increases with increase in stock price whereas the put option decreases with increase in stock price.

Question No: 03

3D plot of P(t,x) varying t and x

<u>Question No: 04</u>

All the observations are printed in the output pdf of Question No 4