

MA374

Financial Engineering –2

Lab Report – 8

Aman Kumar

Roll no. - 200123007

Q1.

a. Output :

For NSE Stock:	
Stock Name	Volatility
ASIANPAINT.NS	0.2749946764848125
BAJFINANCE.NS	0.2302444131365723
HDFC.NS	0.14202008052505763
KOTAKBANK.NS	0.3920689333746333
MARUTI.NS	0.3981865881031032
RELIANCE.NS	0.40291275333251647
TCS.NS	0.3603536471571147
TITAN.NS	0.3393370835743592
UPL.NS	0.6144916231218622
WIPRO.NS	0.41247256919290254
NSE Index	0.23368404829054062

For BSE Stock :	
Stock Name	Volatility
AXISBANK.BO	0.26924147912167795
BEL.BO	0.5043716301212209
FINCABLES.BO	0.509460426064271
HDFC.BO	0.14324126639560597
HDFCBANK.BO	0.1497159494267968
RELIANCE.BO	0.4026734842577769
SBILIFE.BO	0.2592595238407547
SKFINDIA.BO	0.4381952447400113
SPICEJET.BO	0.6674588366308725
TCS.BO	0.36036139559857083
BSE Index	0.2262694080264627

b.Output :

For NSE Stocks :

A	Option type	ASIAMPAIN.T.NS	BAJFINANCE.NS	HDFC.NS	KOTAKBANK.NS	MARUTI.NS	RELIANCE.NS	TCS.NS	TITAN.NS	UPL.NS	WIPRO.NS	NSE Index
1	Call Price	276.277	507.444	140.097	222.323	1035.49	317.51	367.851	278.377	130.69	49.9878	1429.59
0.5	Call Price	1582.08	3368.77	1351.36	936.712	4303.73	1305.99	1668.97	1330.99	371.293	201.402	9375.92
0.1	Call Price	2786.73	5933.91	2380.35	1649.04	7575.87	2298.77	2939.07	2344.16	646.303	354.445	16515.2
1.5	Call Price	6.8957	4.24133	0.00571782	23.7099	115.792	36.7847	29.704	18.0283	38.957	6.20246	13.2573
1	Put Price	200.036	345.102	74.974	177.208	828.228	254.619	287.442	214.245	113.008	40.2908	977.758
0.5	Put Price	0.0111325	0.000796769	1.07146e-11	0.52963	2.80155	0.94442	0.411726	0.16947	4.37717	0.178516	0.00306976
0.1	Put Price	3.92192e-32	2.65367e-45	1.35651e-118	4.20718e-16	5.9214e-15	4.1252e-15	9.02602e-19	2.93168e-21	7.0646e-07	3.14081e-15	1.52908e-43
1.5	Put Price	1436.48	3048.33	1221.12	869.662	4002.2	1216.05	1537.44	1220.58	370.509	188.032	8485.51

For BSE Stocks :

A	Option type	AXISBANK.BO	BEL.BO	FINCABLES.BO	HDFC.BO	HDFCBANK.BO	RELIANCE.BO	SBILIFE.BO	SKFINDIA.BO	SPICEJET.BO	TCS.BO	BSE Index
1	Call Price	82.0749	15.2391	84.0918	140.915	89.8177	317.467	104.864	604.673	7.62791	368.146	4630.63
0.5	Call Price	478.456	51.4101	281.195	1350.87	833.739	1306.5	631.006	2309.49	20.2025	1670.27	31182
0.1	Call Price	842.771	90.2018	493.244	2379.49	1468.59	2299.67	1111.48	4062.15	34.9707	2941.37	54925.5
1.5	Call Price	1.82705	3.1257	17.6237	0.00660762	0.00834495	36.7147	1.88402	88.6262	2.58755	29.73	34.1448
1	Put Price	59.0181	12.7714	70.5975	75.8158	49.6395	254.552	74.4559	493.539	6.67117	287.674	3127.96
0.5	Put Price	0.00236888	0.201232	1.17284	1.69478e-11	9.97107e-11	0.93984	0.00161372	3.35234	0.349103	0.412141	0.00497856
0.1	Put Price	5.04813e-34	5.42191e-11	4.65864e-10	1.33019e-116	4.73738e-107	3.95948e-15	1.68815e-36	1.61475e-12	4.28151e-07	9.04988e-19	6.23372e-46
1.5	Put Price	434.167	49.399	270.657	1220.68	753.391	1216.44	572.072	2172.5	20.5274	1538.65	28210.8