Roots Institute of Financial Markets

RIFM

Practice Book

Options Trading Strategies Module

Forward

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- IRDA Certified for Life Insurance
- IRDA Certified for General Insurance
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- Certification in all Modules of CFP^{CM} Curriculum (FPSB India)

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Options Trading Strategies Module

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Introduction to options

1. __________ implement strategies which help in generating income for them under various market conditions.

   A. Speculators
   B. Arbitragers
   C. Hedgers
   D. All of the above

2. In India Index option have a _________ style settlement.

   A. American
   B. European
   C. Both of the above
   D. None of the above

3. In India stock options have __ style settlement.

   A. American
   B. European
   C. Both of the above
   D. None of the above

4. Buyer of an option has the right and seller if the option is obliged to buy/sell the asset.

   A. True
   B. False

5. _________give the buyer the right but not the obligation to buy a quantity of the underlying assets on given price or future date.

   A. Calls
   B. puts
   C. Both of the above
   D. None of the above

6. _________give the buyer the right but not the obligation to sell a quantity of the underlying assets on given price or before given date .

   A. Puts
   B. Calls
   C. Both of the above
   D. None of the above

7. The price specified in the options contract is known as the __________ or the ________

i. Strike price
ii. Exercise price
iii. Market price
iv. Future price

A. I , ii
B. Iii , iv
C. Ii , iii
D. I , iv

Answer Sheet			
1	B	23	D
2	D	24	A
3	A	25	B
4	A	26	B
5	A	27	A
6	A	28	B
7	A	29	D
8	A	30	C
9	A	31	B
10	B	32	C
11	A	33	A
12	B	34	C
13	C	35	A
14	B	36	A
15	C	37	D
16	D	38	D
17	B	39	B
18	C	40	D
19	A	41	D
20	A	42	A
21	B	43	A
22	C	44	D
		45	A

Strategy 2
Short call

1. If an investor is very bearish about a stock/index, he will follow ____ strategy
   A. Long call
   B. Short call
   C. Synthetic Call
   D. Long put

2. In Short call strategy maximum profit is limited while maximum loss is limited.
   A. True
   B. False

3. Breakeven in long call option strategy will be:
   A. Stock price-premium
   B. Strike price+ premium
   C. Strike price-premium
   D. Data insufficient

4. As the stock price/index raises the short call moves in to loss.
   A. True
   B. False

5. Mr. ABC is bearish on stock of reliance Capital Ltd. On 20 July, 2010 Reliance Capital Ltd is traded at 680 and he buys a call on strike price of 680. This call is called______
   A. In the money
   B. Out of the money
   C. At the money
   D. Deep in the money

6. Mr. ABC is bearish on stock of reliance Capital Ltd. On 20 July, 2010 Reliance Capital Ltd is traded at 650 and he buys a call on strike price of 680. This call is called______
   A. In the money
   B. Out of the money
   C. At the money
   D. Deep in the money

7. Mr. ABC is bearish on stock of reliance Capital Ltd. On 20 July, 2010 Reliance Capital Ltd is traded at 700 and he buys a call on strike price of 680. This call is called______
   A. In the money
   B. Out of the money
   C. At the money
   D. Deep in the money

Answer Sheet Strategy 2

1	B	8	D
2	A	9	D
3	B	10	B
4	A	11	A
5	C	12	B
6	A	13	C
7	B	14	A
		15	B

Strategy 7
Long Combo: Sell a Put, Buy a Call

1. Long combo is a _______ strategy
   A. Bearish
   B. Conservative Bearish
   C. Conservative bullish
   D. Bullish

2. An investor is bullish on security 'A' when it is trading at Rs. 300. He buys a call of strike price 330 @ Rs. 4 and sell a put of strike price 270 @ Rs. 3. This strategy is called ____________
   A. Covered call
   B. Synthetic call
   C. Long combo
   D. Long straddle

3. What is maximum risk in long combo strategy?
   A. Unlimited
   B. Higher strike price + Net debit
   C. lower strike price + Net debit
   D. No Risk

4. What is breakeven point in long combo strategy?
   A. Unlimited
   B. Higher strike price + Net debit
   C. lower strike price + Net debit
   D. No Risk

5. What is maximum profit in long combo strategy?
   A. Unlimited
   B. Higher strike price + Net debit
   C. lower strike price + Net debit
   D. No Risk

6. A stock ABC Ltd. Is trading at Rs. 450. Mr. XYZ is bullish on the stock, but does not want to invest Rs. 450. He does a long combo. He sells a put option with a strike price Rs. 400 at a premium of Rs. 1 and buys a call option with a strike price of Rs. 500 at a premium of Rs. 2. What is the net outflow for Mr. XYZ?
   A. Rs. 450
   B. Rs. 2
   C. Rs. 1
   D. Rs. 400

Answer Sheet Strategy 7			
1	D	9	D
2	C	10	A
3	C	11	C
4	B	12	C
5	A	13	C
6	C	14	D
7	C	15	D
8	A	16	A
		17	C

Strategy 9
Covered Put

4. Suppose ABC Ltd. Is trading at Rs. 4500 in June. An investor, Mr. A, shorts Rs. 4300 put by selling a July put for Rs. 24 while shorting an ABC Ltd. Stock. What is the breakeven point in a covered put strategy?
   A. Sale price of stock-Strike price +Put premium
   B. Sale price of stock-Strike price -Put premium
   C. Sale price of stock +Put premium
   D. Sale price of stock- Put premium

5. Based on Question 4, What is the maximum risk for Mr. XYZ?
   A. Unlimited
   B. Rs. 224
   C. Rs. 4524
   D. Rs. 4324

6. Based on Question 4, What is breakeven point for Mr. XYZ?]
   A. Unlimited
   B. Rs. 224
   C. Rs. 4524
   D. Rs. 4324

7. Based on Question 4, What is maximum profit for Mr. XYZ?
   A. Unlimited
   B. Rs. 224
   C. Rs. 4524
   D. Rs. 4324

8. Based on Question 4, What will be the net payoff for Mr. XYZ if ABC Ltd. Closes at 4000?
   A. 224
   B. 124
   C. -124
   D. -224

9. Based on Question 4, What will be the net payoff for Mr. XYZ if ABC Ltd. Closes at 4200?
   A. 224
   B. 124
   C. -124
   D. -224

10. Based on Question 4, What will be the net payoff for Mr. XYZ if ABC Ltd. Closes at 4450?
   A. +74
   B. -74
   C. +24
   D. -24

11. Based on Question 4, What will be the net payoff for Mr. XYZ if ABC Ltd. Closes at 4500?
   A. +74
   B. -74

C. +24
D. -24

12. Based on Question 4, What will be the net payoff for Mr. XYZ if ABC Ltd. Closes at 4524?
   A. +24
   B. +26
   C. -26
   D. 0

13. Based on Question 4, What will be the net payoff for Mr. XYZ if ABC Ltd. Closes at 4600?
   A. +24
   B. 0
   C. +76
   D. -76

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Answer Sheet Strategy 9

1	C	9	A
2	D	10	A
3	A	11	C
4	C	12	D
5	A	13	D
6	C	14	C
7	B	15	A
8	A		

Solution 8: Net payoff= Net inflow at beginning- Net Outflow on expiry
Net inflow at beginning= Stock price paid + premium received
= 4500 + 24= 4524
Net outflow on expiry= Stock purchase back-Put executed if ITM
Net outflow= 4000+300 (as put is ITM and Rs. 300 to be paid)
=4300
Net payoff= 4524-4300= +224

Solution 9: Net outflow= 4200+100 (as put is OTM and Rs. 100 to be paid)
=4300
Net payoff= 4524-4300= +224

Solution 10: Net outflow= 4450+0 (as put is OTM now)
=4450
Net payoff= 4524-4450= +74

Solution 11: Net outflow= 4500+0 (as put is OTM now)
=4500
Net payoff= 4524-4500= +24

Solution 12: Net outflow= 4524+0 (as put is OTM)
=4524
Net payoff= 4524-4524= 0

Solution 13: Net outflow= 4600+0 (as put is OTM)
=4600
Net payoff= -4524-4600= -76

Solution 14: Net outflow= 4650+0 (as put is OTM)
=4650
Net payoff= 4524-4650= -126

Strategy 14
Collar

9. Suppose an investor Mr. A buys or is holding ABC Ltd. currently trading at Rs. 4758. He decides to write a call of strike price Rs. 5000 for Rs. 39 while simultaneously purchase a rs. 4700 strike price put for Rs. 27.Mr. A has entered into __________ Strategy?
   A. Long condor
   B. Bull Call spread
   C. Collar
   D. Long put

10. Based on Question 9, what is the net debit/credit for Mr. A at the time of contract?
   A. 4758 debit
   B. 4758 credit
   C. 4746 debit
   D. 4746 credit

11. Based on Question 9, what is the risk for Mr. A?
   A. Rs. 4746
   B. Rs. 46
   C. Rs. 39
   D. Rs. 27

12. Based on Question 9, what is the breakeven for Mr. A?
   A. 4758
   B. 4746
   C. 4739
   D. 5127

13. Based on Question 9, What will be net payoff for Mr. A if ABC closes at 4400?
   A. -46
   B. -54
   C. 46
   D. 54

14. Based on Question 9, What will be net payoff for Mr. A if ABC closes at 4600?
   A. -46
   B. -54
   C. 46
   D. 54

15. Based on Question 9, What will be net payoff for Mr. A if ABC closes at 4746?
   A. 0
   B. 254
   C. 46
   D. -46

16. Based on Question 9, What will be net payoff for Mr. A if ABC closes at 4800?

A. +39
B. -27
C. 92
D. 104

1	C	10	C
2	D	11	B
3	A	12	B
4	D	13	A
5	A	14	A
6	A	15	A
7	C	16	D
8	C	17	C
9	C	18	C
		19	A

Solution13: Net payoff= Net Inflow on expiry- Net Debit at the time of contract
Net Debit at the time of contract= Stock price paid + Put premium paid- Call Premium received
Net Inflow on expiry= Closing price+ call price to be paid- Put price to be Received
Net Debit at the time of contract= 4758+39-27= 4746
Net Inflow on expiry= 4400 +300 (put is ITM) -0 (Call is OTM)
=4700
Net payoff=4700-4746=-46

Solution 14: Net Inflow on expiry= 4600 +100 (put is ITM) -0 (Call is OTM)
=4700
Net payoff=4700-4746=-46

Solution 15: Net Inflow on expiry= 4746 +0 (put is OTM) -0 (Call is OTM)
=4746
Net payoff=4746-4746=0

Solution 16: Net Inflow on expiry= 4800 +0 (put is OTM) -0 (Call is OTM)
=4800
Net payoff=4800-4746=54

Solution 17: Net Inflow on expiry= 4948 +0 (put is OTM) -0 (Call is OTM)
=4948
Net payoff=4948-4746=202

Solution 18: Net Inflow on expiry= 5150 +0 (put is OTM) -150 (Call is ITM)
=5000
Net payoff=5000-4746=254

Solution 19: Net Inflow on expiry= 5300 +0 (put is OTM) -300 (Call is ITM)
=5000
Net payoff=5000-4746=254

Strategy 19
Long Call Butterfly

1. Long call butterfly strategy is used in ________ market
   A. Bullish
   B. Bearish
   C. Neutral and bearish on volatility
   D. Volatile

2. If an investor is neutral on market direction and also bearish on volatility which strategy he should used?
   A. Long Straddle
   B. Long Strangle
   C. Long Call Butterfly
   D. Long Put

3. ________strategy can be done by selling 2 ATM Calls, buying 1 ITM Call, and buying 1 OTM Call options
   A. Long Straddle
   B. Long Strangle
   C. Long Call Butterfly
   D. Long Put

4. In Long Call butterfly strategy the distance between the strike price of calls should be _____
   A. Equal
   B. Small
   C. Large
   D. Data insufficient

5. What is maximum risk in Long Call butterfly strategy?
   A. Difference between adjacent strikes minus net debit
   B. Net debit paid
   C. Strike Price of Higher Strike Long Call – Net Premium Paid
   D. Strike Price of Lower Strike Long Call + Net Premium Paid

6. What is maximum profit in Long Call butterfly strategy?
   A. Difference between adjacent strikes minus net debit
   B. Net debit paid
   C. Strike Price of Higher Strike Long Call – Net Premium Paid
   D. Strike Price of Lower Strike Long Call + Net Premium Paid

Answer Sheet Strategy 19

1	C	9	C
2	C	10	B
3	C	11	A
4	A	12	D
5	B	13	D
6	B	14	C
7	A	15	D
8	C	16	B

Solutions
Net Payoff= Net flow on expiry- Net debit
Net flow on expiry= 2* value of ATM call- Value of ITM call- Value of OTM call
Net debit= 2* Premium of ATM call- Premium of ITM Call- Premium of OTM Call
=195.80*2-141.55-64
=9.75
Solution 12 Net flow on expiry= 2* ATM calls are sold now OTM-ITM call purchase- OTM call purchase in OTM
=0*2-0-0=0
Net payoff= 0-9.75=-9.75

Solution 13: Net flow on expiry= 2*ATM are OTM-ITM is ITM-OTM is OTM
=0-9.75-0=-9.75
Net payoff= 9.75-9.75=0

Solution 14: Net flow on expiry= 2calls sold are ATM-one lower strike call purchase is ITM- Other higher strike call purchase is OTM
=0-100-0==-100
Net payoff= 100-9.75=90.25

Solution 15: Net flow on expiry= 2*calls sold are ITM-one lower strike call purchase is ITM- Other higher strike call purchase is OTM
=2*90.25-190.25-0=9.75
Net payoff= 9.75-9.75=0

Solution 16: All calls are ITM
=2*700-800-600=0
Net payoff= 0-9.75=-9.75

Model Test

1. The number of breakeven points in a short straddle is/are ____.   [2 Marks]

   A. 4
   B. 1
   C. 2
   D. 0

2. The current stock price of XYZ Ltd. is Rs. 30. At an exercise price of Rs. 30, put option on XYZ is priced at Rs. 2.15 each and the call options are priced at Rs. 2.89 each. Each contract consists of 100 options. What is the maximum profit if you buy a call?   [2 Marks]

   A. Rs. 3289
   B. Unlimited
   C. Rs. 2711
   D. Rs. 3000

3. The intrinsic value of a put option is the maximum of _____.   [2 Marks]

   A. (Spot Price - Strike Price), and zero
   B. (Strike Price - Spot Price), and zero
   C. (Strike Price - Spot Price - Premium), and zero
   D. (Spot Price - Strike Price - Premium), and zero

4. An investor Mr. B, sells 2 ATM Call Options, Buys 1 ITM call option and buys 1 OTM call option. The strategy is a ___ strategy.   [2 Marks]

   A. Bear spread
   B. Short Condor
   C. Long Call Butterfly
   D. Bull spread

5. There is a put option on a stock with a strike price of Rs. 35 trading at Rs. 2. What would be the price of the put option with a strike price of Rs. 34?   [1 Mark]

   A. Less than Rs. 2
   B. Re. 1
   C. Rs. 2
   D. Rs. 3

6. The profitable area of the pay off profile in a Long Call Condor is wider than that of the ______.   [2 Marks]

   A. Long Call

B. Long Put
C. Long Call Butterfly
D. Long Strangle

7. The lower breakeven point in a long straddle _____. [2 Marks]

A. Strike Price of Long Call - Net Premium Paid on put
B. Strike Price of Long Call - Net Premium Paid on call
C. Strike Price of Long Call + Net Premium Paid
D. Strike Price of Long Call - Net Premium Paid

Answer Sheet					
1	C	21	C	41	A
2	B	22	C	42	D
3	B	23	B	43	B
4	C	24	B	44	D
5	A	25	B	45	C
6	C	26	D	46	D
7	D	27	A	47	A
8	A	28	B	48	B
9	C	29	B	49	D
10	B	30	B	50	C
11	D	31	B	51	D
12	A	32	D	52	D
13	A	33	B	53	D
14	A	34	A	54	C
15	D	35	D	55	D
16	B	36	D	56	D
17	A	37	D	57	C
18	A	38	A	58	B
19	B	39	A	59	D
20	B	40	D	60	D

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