SSEI
Sanjay Saraf Educational Institute Pvt. Ltd.
A positive NPV Training Center

ADVANCED FINANCIAL MANAGEMENT

CASE SCENARIO BASED MCQ QUESTIONS

CASE STUDY 1

*[In **CASE STUDY 1**, Questions 1 to 3 are derived from the Institute of Chartered Accountants of India (ICAI), while questions 4 to 12 have been additionally formulated by SSEI.]*

X and Y are two friends. Since Y has earned a lot of profit from trading in financial derivative market, X is also considering speculating on Gamma Corporation's shares which is currently trading at ₹ 700 per share through taking positions in options in stocks of same company. Accordingly, X took following contract positions in the options on Gama Corporation's stock (Assuming that the contract size of each option contract is 100):

i. Purchasing one contract of 2-month call option with a premium of ₹ 35 and an exercise price of ₹ 750.

ii. Purchasing one contract of 2-month put option with a premium of ₹ 25 and an exercise price of ₹ 600.

After some time, trading in Option Market and understanding the nitty-gritties of same, X being CEO in an organization advised his team to implement the concept of Financial Options in the Capital Budgeting decisions called 'Real Option'.

Based on the above information answer the following questions:

Question 1:

Assuming that the contract size of each option contract is 100 and the price of Gama Corporation's share after two months falls to ₹ 550, the net pay-off of X will be……

A. ₹ 1,000 loss

B. ₹ 1,000 profit

C. ₹ 3,000 profit

D. ₹ 3,000 loss

Question 2:

The per share price of Gama Corporation's stock after 2 months at which X shall be at Break Even is…..

A. ₹ 540

B. ₹ 600

C. ₹ 625

D. ₹ 785

Question 3:

Which of the following statement is false regarding Real Options?

A. Real Options methodology is an approach to capital budgeting that relies on Option Pricing theory to evaluate projects.

B. Real options approach is intended to supplement, and not replace, capital budgeting analyses based on standard Discounted Cash Flow (DCF) methodologies.

C. Real options are different from financial options as their periods start from the end of 1st year and are higher than financial options.

D. Real options are normally traded in the market and are priced.

Question 4:

What is this strategy know as:

A. Short Straddle

B. Long Strangle

C. Long butterfly spread

D. Box spread

Question 5:

Calculate the maximum possible loss:

A. 6,000

B. 3,500

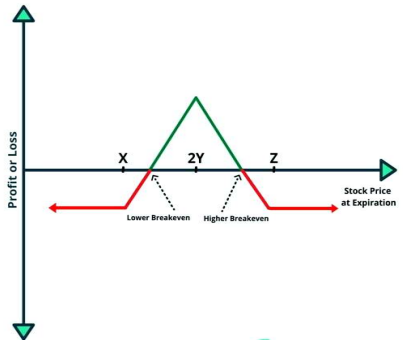
C. 2,500

D. Unlimited

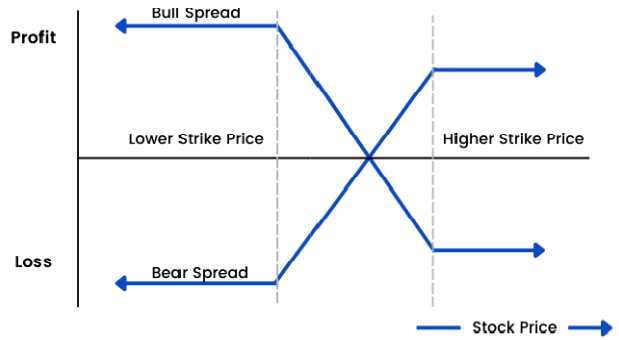
Question 6:

Which of the following represents profit diagram of this strategy

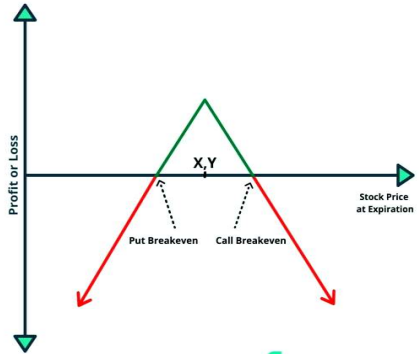
A.



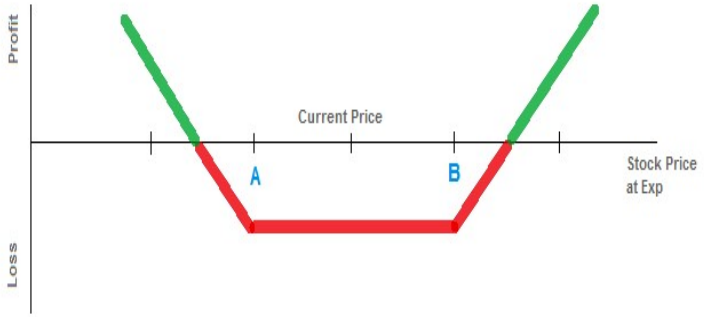
B.



C.



D.



Question 7:

What is the price belief (expectation) of Mr. X:

A. The investor expects a moderate upward price movement

B. The investor anticipates a neutral to slightly bullish price outlook, aiming to generate income by selling call options against an underlying security

C. The investor anticipates significant price movement, either up or down

D. The investor expects minimal price movement and aims to profit from low volatility

Question 8:

State the vega of this strategy?

A. 0

B. Negative

C. Positive

D. Cannot be determined

Question 9:

State the theta of this strategy?

A. 0

B. negative

C. Positive

D. Cannot be determined

Question 10:

State the gamma of this strategy?

A. 0

B. negative

C. Positive

D. Cannot be determined

Question 11:

Calculate maximum profit from this strategy:

A. 69,000 on the right side and unlimited profit on the left side

B. 54,000 on the left side and unlimited profit on the right side

C. 54,000 on the left side and 69,000 on the right side

D. Unlimited profit on both sides

Question 12:

Although in **Question 2**, ICAI has specified only BEP i.e. 540, there will be another BEP. What is that?

A. 500

B. 660

C. 760

D. 800

CASE STUDY 2

Source: FOD

S_0 = Stock price when option position opened = 25.00

X = Option exercise price = 30.00

S_T = Stock price at option expiration = 31.33

c_0 = Call premium received = 1.55

Question 1:

Which of the following correctly calculates the maximum gain from writing a covered call?

A. $(S_T - X) + c_0 = 31.33 - 30.00 + 1.55 = 2.88$

B. $(S_T - S_0) - c_0 = 31.33 - 25.00 - 1.55 = 4.78$

C. $(X - S_0) - c_0 = 30.00 - 25.00 - 1.55$

D. $(X - S_0) + c_0 = 30.00 - 25.00 + 1.55 = 6.55$

Question 2:

Which of the following correctly calculates the breakeven stock price from writing a covered call?

A. $S_0 - c_0 = 25.00 - 1.55 = 23.45$

B. $S_T - c_0 = 31.33 - 1.55 = 29.78$

C. $X + c_0 = 30.00 + 1.55 = 31.55$

D. $S_0 + c_0 = 25.00 + 1.55 = 26.55$

Question 3:

Which of the following correctly calculates the maximum loss from writing a covered call?

A. $S_0 - c_0 = 25.00 - 1.55 = 23.45$

B. $S_T - c_0 = 31.33 - 1.55 = 29.78$

C. $S_T - X + c_0 = 31.33 - 30.00 + 1.55 = 2.88$

D. $X - S_0 + c_0 = 30.00 - 25.00 + 1.55 = 6.55$

CASE STUDY 3

Source: FOD

S_0 = Stock price when option position opened = 25.00

X = Option exercise price = 20.00

S_T= Stock price at option expiration = 31.33

p_0 = Put premium paid = 1.15

Question 1:

Which of the following correctly calculates the gain with the protective put?

A. $S_T - S_0 - p_0 = 31.33 - 25.00 - 1.15 = 5.18$

B. $S_T - S_0 + p_0 = 31.33 - 25.00 + 1.15 = 7.48$

C. $S_T - X - p_0 = 31.33 - 20.00 - 1.15 = 10.18$

D. $S_T - X - p_0 = 31.33 - 30.00 - 1.15 = 0.18$

Question 2:

Which of the following correctly calculates the breakeven stock price with the protective put?

A. $S_0 - p_0 = 25.00 - 1.15 = 23.85$

B. $S_0 + p_0 = 25.00 + 1.15 = 26.15$

C. $S_T + p_0 = 31.33 + 1.15 = 32.48$

D. None of the above

Question 3:

Which of the following correctly calculates the maximum loss with the protective put?

A. $S_0 - X + p_0 = 25.00 - 20.00 + 1.15 = 6.15$

B. $S_T - X - p_0 = 31.33 - 20.00 - 1.15 = 10.18$

C. $S_0 - p_0 = 25.00 - 1.15 = 23.85$

D. $X - S_T + p_0 = 30.00 - 31.33 + 1.15 = -0.18$

CASE STUDY 4

Source: FOD

Use the following information to answer questions 1 to 3 on spreads.

$S_0 = 44.50$

OCT 45 call = 2.55, OCT 45 put = 2.92

OCT 50 call = 1.45, OCT 50 put = 6.80

Question 1:

What is the maximum gain with an OCT 45/50 bull call spread?

A. 1.10

B. 3.05

C. 3.90

D. 4.25

Question 2:

What is the maximum loss with an OCT 45/50 bear put spread?

A. 1.12

B. 5.28

C. 4.38

D. 3.88

Question 3:

What is the breakeven price with an OCT 45/50 bull call spread?

A. 46.10

B. 47.50

C. 48.88

D. 49.50