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19HS20054
MMS - Test - End Sem.

Q1. Before investing the investor should think over

1) Comfortable Risk zone: The amount of risk the investor is comfortable in taking
2) Portfolio diversification: which stocks to buy to min risk
3) Emergency Fund.
4) whether to be an active or passive investor.
5) Brokerage Fee
6) Taxes
7) Exchange Fees.

Q2 = It maybe the case the Rina choose hourly free structures for more freed to liquidate assets which other is not possible

Q3 = No of Shares = 120
Value per Share = $150

Total Price of short selling = $150 × 120
= $18000

If there is to be a profit of $2400
the buying price must be = 18000 - 2400
= $15600

Per Share cost = $ 15600 / 120 = 130

Therefore the short sale must be covered at a price of $130 to have a profit of $2400.

Q4 We have $E(R_m) = 12\%$

$R_f = 8\%$

i) $E(R_1) = R_f + \beta_1 (E(R_m) - R_f)$

$= 8\% + 0.8(12 - 8)$

$= 11.20\%$

ii) $E(R_2) = R_f + \beta_2 (E(R_m) - R_f)$

$= 8\% + 1.2(12\% - 8\%)$

$= 12.80\%$

iii) $E(R_3) = 8\% + 0.6(12\% - 8\%)$

$= 10.40\%$

B) The expected return is greatest for Stock 2, therefore Stock 2 is recommended.

Market ER_m

Q5 =

Expected return = 13%.
Risk free rate R_f = 5.5%
Beta β = 1.85%

Required Return = $R_f + \beta(ER_m - R_f)$
= $5.5 + 1.85(13 - 5.5)$
= $5.5 + 1.85(7.5)$
= 19.375

Q6 =

Dividend = 1.25
Growth rate = 6%
New Dividend = $1.25(1 + 0.06)$
= 1.325

Present Value = $\frac{1.325}{(1+0.12)}$ = $1.183

Q7 Here only the opportunity costs apply according to the cost of Carory model.

Price of Gold Futures $= 370\left(1 + \frac{10\%}{12}\right)^6$

(Compounded monthly)

$= 370\left(1 + \frac{10}{100 \times 12}\right)^6$

$= \$388.889.$

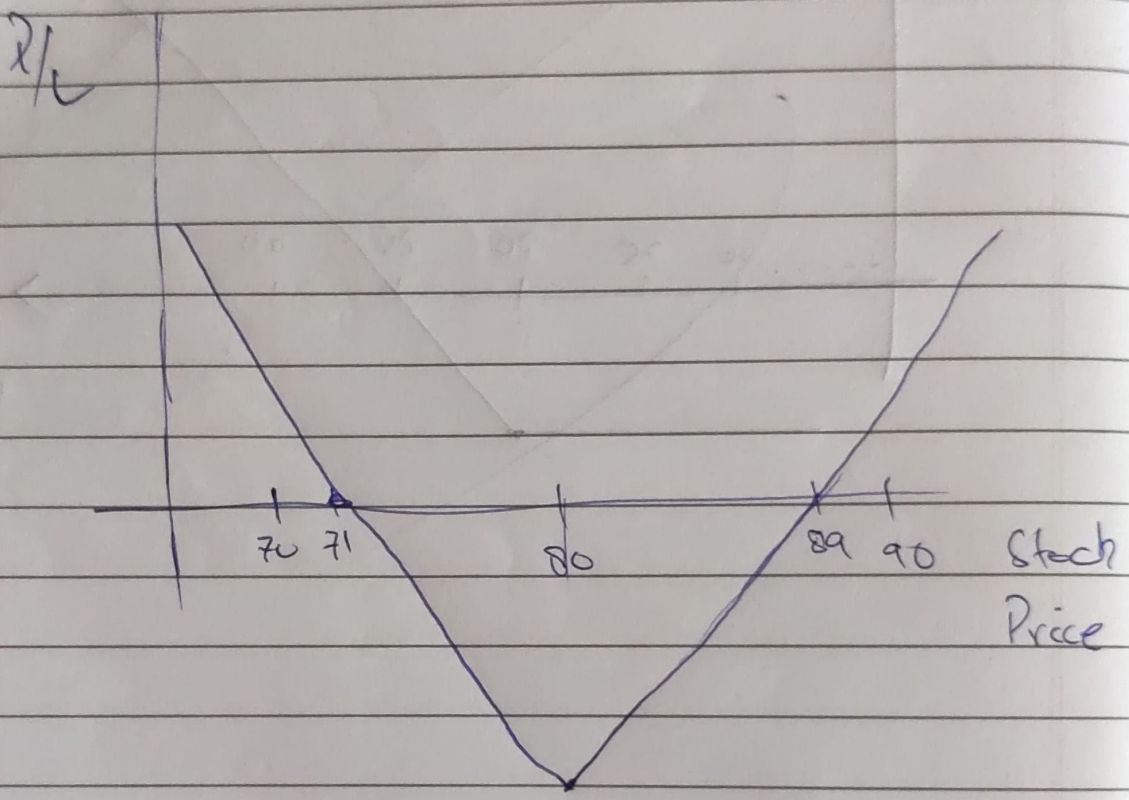
Q8 Here the call price is not equal to the difference in stock price & exercise price. The situation can be handled as follows

Buy the option & exercise is for a total cost of $74.

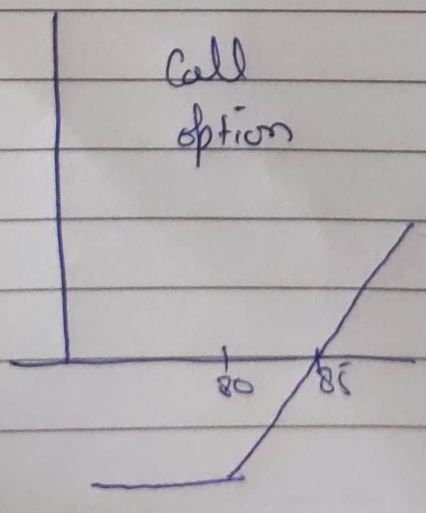
Simultaneously sell the stock just acquired for $75.

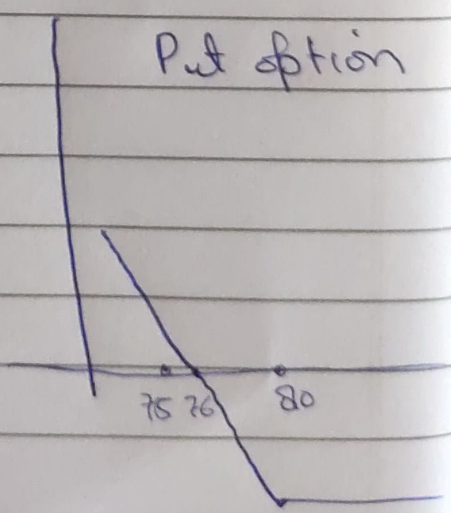
This creates $1 profit.

Q9 If stock price is $80 at expiration neither the call nor the put can be exercised. Both expire giving a total loss of $9.



S-d graphs





Q10 No of shares = 100
Price / share = $60
Initial Margin = 50%
Maintainence Margin = 30%

A) Total Value of Stock = $60 × 100 = $6000
As the Initial Margin is 50, the initial amount to be paid is = 50% of 60
$= \frac{50}{100} \times 60$
$= 3000$

B) Price drops to → $55.
Loss per share = 60 - 55 = $5
Total Loss = 5 × 100 = 500

The actual margin now will be
= $3000 - $500 = $2500

c) Margin call price is given as

$$\text{Margin CP} = \frac{\text{Initial Purchase Price} \times (1 - \text{Initial Margin})}{(1 - \text{Maintainence Margin})}$$

$$MCP = \frac{6000(1-0.5)}{(1-0.3)} = \frac{3000}{0.7} = 4285.71$$

As the total value drops to $4285.71 there will be a margin call

Per share price $= \frac{4285.71}{100} = \$42.8571$

b) Stock price dropped to $58.

The loss $= (\$60 - \$58) \times 100 = (\$2) \times 100$

$= \$200$

New margin $= 3000 - 200 = 2800$

Maintenance Margin $= 30\% = \frac{30}{100} \times 6000 = 1800$

As the new margin > Maintenec Margin, the account is not restricted

Q12 The strategy is butterfly strategy.
=
Payoff.