

AFM/SFM Test-7

Mission 80+ in AFM/SFM for Nov/Dec 2024 attempt

Time Allowed – 2 Hr

Maximum Marks - 60

All Questions are Compulsory.

Working Notes should form part of the respective answer.

PART I – Case Scenario based MCQs (18 Marks)

In our CA Final AFM paper / CMA Final SFM Paper conducted by Institute, it is not required to show the working for MCQs. However, for our test series, we highly recommend that students provide detailed workings.

This allows us to better evaluate your preparation and understanding of the concepts.

Case Scenario I:

Sitara company Ltd. is interested to expand its operations in US for which it requires funds of \$20 million, net of issue expenses and floatation costs etc., which amounts to 3% of the issue size. To finance this project, it proposes to issue GDR.

Following factors are considered in pricing the issue:

- (i) Expected market price of share at the time of issue of GDR is ₹300 (FV ₹ 100)
- (ii) 3 shares shall underlay each GDR and shall be priced at 10% discount to market price.
- (iii) Expected exchange rate is ₹75/\$

10% Dividend is expected to be paid for next year which will grow @ $g\%$ forever.

(i) Net Proceeds per GDR is 2M
(a) \$10.8 (b) ₹785.70 (c) \$10.476 (d) both (b) & (c) are correct

(ii) Number of GDR to be issued 2M
(a) 1.85185 mill (b) 1.71821 mill (c) 1.90913 mill (d) 1.96817 mill

(iii) If cost of GDR is 18.818%, calculate the growth rate ($g\%$) 2M
(a) 15.114% (b) 16% (c) 18.436% (d) 15%

(iv) If the company receives an offer from US Bank willing to provide an equivalent amount of loan with interest rate of 10.5% (loan processing charge is 2.94% of sanctioned loan). 2M

Calculate the value of g (i.e. growth rate of dividend) at which the Company will be at indifference between both mode of financing.

(a) 6.682% (b) 7% (c) 9.622% (d) 10.818%

Case Scenario II:

Neptune Ltd. has ₹300 million, 12% bonds outstanding with 6 years remaining to maturity. Since interest rates are falling, Neptune Ltd. is contemplating of refunding these bonds with a ₹300 million issue of 6 years bonds. Issue cost of the new bond will be ₹ 6 million and the call premium is 4%. Rupees 9 million being the unamortized portion of issue cost of old bonds can be written off no sooner the old bonds are called off. Marginal tax rate of Neptune Ltd. is 30%.

NPV of the bond refunding decision is 17.61 Million at 7% discount rate.

- (a) Net initial Outflow of refunding decision is: **2M**
 (a) 10.70 Mill (b) 11.70 Mill (c) 10.90 Mill (d) 17.10 Mill
- (b) Net of tax Annual Saving is: **2M**
 (a) 29.31 Mill (b) 6.15 Mill (c) 6.51 Mill (d) 23.91 Mill
- (c) Coupon rate of New Bond is: **3M**
 (a) 8% (b) 10% (c) 9% (d) None
- (d) Suppose there is overlapping period of 2 Month, as the new bonds must first be sold and their proceeds, then used to retire old bonds. In this case which of the statement is not true: **1M**
 (a) NPV increases (b) NPV decreases
 (c) NPV remain Same (d) None of the above

MCQ.III Combination of two fixed floating currency swaps to fixed to fixed currency swap is called? **1M**
 (a) Vanilla Swap (b) Circus Swap (c) Extendible Swap (d) Roller-Coaster Swaps

MCQ.IV An Indian company's cost of production is ₹40/unit while its export price is £ 1/ unit. If the ₹ depreciates by 10% and the spot rate today is ₹90 per £, what is the impact of transaction exposure? **1M**
 (a) Increase in profit by ₹9 per unit. (b) Decrease in profit by ₹9 per unit
 (c) No change in revenue nor cost (d) Increase in profit by ₹10 per unit

PART II – Descriptive Questions (42 Marks)

1. Capital structure of Moon Ltd., as at 31.3.2024 was as under: **7**

| | (₹ in lakhs) |
|--|--------------|
| Equity share capital (Face Value ₹100) | 80 |
| 8% Preference share capital | 40 |
| 12% Debentures | 64 |
| Reserves | 32 |

Moon Ltd. earns a profit of ₹ 32 lakhs annually on an average before deduction of income-tax, which works out to 35%, and interest on debentures.

Normal return on equity shares of companies similarly placed is 9.6% provided:

- (a) Profit after tax covers fixed interest and fixed dividends at least 3 times.
 (b) Capital gearing ratio is 0.75.

The yield on share is calculated at 50% of profits distributed and at 5% on undistributed profits.

Moon Ltd. has been regularly paying equity dividend of 8%.

Compute the value per equity share of the company assuming:

- (i) 2% for every one time of difference for Interest and Fixed Dividend Coverage.
 (ii) 1% for every one time of difference for Capital Gearing Ratio.

2. A share of the face value of ₹100 has current market price of ₹480. Annual expected dividend is 30%. During the fifth year, the shareholder is expecting a bonus in the ratio of 1:5. 7

Dividend rate is expected to be maintained on the expanded capital base. The shareholder intends to retain the share till the end of the eighth year. At that time, the value of share is expected to be ₹1,000. Incidental expenses at the time of purchase and sales are estimated at 5% on the market price. There is no tax on dividend income and capital gain. The shareholder expects a minimum return of 15% per annum.

Should he buy the share? What is the maximum price he can pay for the share? Show complete working.

3. Following Financial data are available for Crypto Ltd. for the year 2023-24: 8

| | |
|---------------------------------------|-------------|
| Equity Share Capital (₹10 each) | ₹ 200 Lakh |
| Reserves and Surplus | ₹ 600 Lakh |
| 10% Debentures (₹ 100 each) | ₹ 350 Lakh |
| Total Assets | ₹ 1200 Lakh |
| Assets Turnover Ratio | 2 times |
| Tax Rate | 30% |
| Operating Margin | 10% |
| Dividend Payout Ratio | 20% |
| Current Market Price per Equity Share | ₹ 28 |
| Required Rate of Return of Investors | 18% |

You are required to:

- (i) Draw income statement for the year 2023-24.
- (ii) Calculate its sustainable growth rate
- (iii) Calculate the fair price of the Company's share using dividend discount model, and
- (iv) What is your opinion on investment in the company's share at current price?
4. NP and Co. has imported goods for US \$7,00,000. The amount is payable after three months. The company has also exported goods for US \$4,50,000 and this amount is receivable in two months. For receivable amount a forward contract is already taken at ₹ 78.90. 8

The Inter-Bank market rates for ₹ and Dollar are as under:

| | |
|--------------|-------------|
| Spot | ₹78.50/70 |
| Two months | 20/50 point |
| Three months | 40/90 point |

The company wants to cover the risk, and it has two options as under:

- (i) To cover payables in the forward market and
- (ii) To lag the receivables by one month and cover the risk only for net amount. No interest for delaying the receivables is earned.

Evaluate both the options if the cost of Rupee Fund is 12%. Which option is preferable.

Exchange Margin is 0.125% and rates are rounded in multiple of 0.05

5. Mr. X owns a portfolio with the following characteristics:

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| | Security A | Security B | Risk Free security |
|----------------------|------------|------------|--------------------|
| Factor 1 sensitivity | 0.80 | 1.50 | 0 |
| Factor 2 sensitivity | 0.60 | 1.20 | 0 |
| Expected Return | 15% | 20% | 10% |

It is assumed that security returns are generated by a two-factor model.

- (i) If Mr. X has ₹2,00,000 to invest and sells short ₹1,00,000 of security B and purchases ₹3,00,000 of security A what is the sensitivity of Mr. X's portfolio to the two factors?
- (ii) If Mr. X borrows ₹1,00,000 at the risk-free rate and invests the amount he borrows along with the original amount of ₹2,00,000 in security A and B in the same proportion as described in part (i), what is the sensitivity of the portfolio to the two factors?
- (iii) What is the expected Portfolio return premium of Point-(ii)?
6. The price of ABC stock on 31 December 2010 was ₹ 220 and the futures price on the same stock on the same date, i.e., 31 December 2010 for March 2011 was ₹218. Other features of the contract and related information are as follows:

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Time to expiration - 3 months ;

Borrowing rate - 15% p.a.

Annual Dividend on the stock - 25% payable before 31.03. 2011.

Face Value of the Stock - ₹ 10

- (i) Calculate futures price for ABC stock on 31 December 2010
- (ii) How much arbitrage can earn without involving any risk. Show calculation.