PILOT PAPER – 2023-2027 SYLLABUS

SL4.2 Finance Strategy & Valuation

Strategic Level

ANSWER KEY

Part I – Compulsory Question

QUESTION NO: 01

PART A

1.1. Recommend Colby PLC whether to acquire Aventura PLC.

Calculation	2022	2023E	2024E	2025E	2026E	2027E	2028 onwards
Revenue	3,120	3,494	3,914	4,696	5,636	6,481	
Cost of Sales	(1,580)	(1,770)	(1,982)	(2,378)	(2,854)	(3,282)	
Depreciation and Amortization	(230)	(250)	(245)	(280)	(310)	(290)	
Gross profit	1,310	1,475	1,687	2,038	2,472	2,909	
Administration and sales expenses	(340)	(367)	(397)	(408)	(421)	(433)	
EBIT	970	1,108	1,290	1,630	2,051	2,476	
Interest expenses	(370)	(370)	(370)	(370)	(370)	(370)	
Earnings before tax	600	738	920	1,260	1,681	2,106	
Taxation - 35%	(210)	(258)	(322)	(441)	(588)	(737)	
Net Income after tax	390	479	598	819	1,093	1,369	(04 Marks)
(+) Depreciation		250	245	280	310	290	

(+) Int (1-t)		241	241	241	241	241	
(-) Fixed Capital Investments		(80)	(75)	(110)	(100)	(70)	
(-) Working Capital Expenses		(30)	(30)	(35)	(22)	(26)	
FCFF		860	979	1,194	1,521	1,803	19114
Discounting factor	16%	0.8621	0.7432	0.6407	0.5523	0.4761	(04 Marks)
PV		741	727	765	840	859	(01 Mark)
NPV	3,932						
(+) continuing value	9,100						
Value of operations	13,033						
(-) non-operating Assets	1,950						
Enterprise Value	14,983						
(-) Non equity claims	3,880						
Value of Equity	11,103						(02 Marks)
No of shares (Mn)	100						
Intrinsic Value of a share	111.03						(01 Mark)
(Value of Equity/ No of shares)							
Continuing Value Calculation							
FCFF t (2027)	1,803						
FCFF t+1(FCFF t * (1+0.06))	1,911						
WACC	16%						
Growth rate (g)	6%						
CV= (FCCFF t+1/WACC-g)	19,114						(01 Mark)

Since the Price offered by Aventura PLC is Rs.100, the acquisition is economically feasible. (02 Marks)

Mark allocation

- Calculation as indicated above = max of 13 marks
- Provision of the appropriate recommendation = 2 marks

PART B

1.2. Explain the basic forms of acquisitions.

Candidates are required to explain basic forms of acquisitions such as Mergers, Consolidations, Acquisition of stock, and Acquisition of assets.

Mark allocation

explanation of each of these forms of acquisitions = 0.5 marks each.

1.3. Explain the sources of synergy providing examples to each.

- Candidates should explain various sources of synergies such as revenue enhancement, cost reduction and tax benefits.
- Candidates should provide examples for each source.

Mark allocation

- Explanation of different sources of synergies 1 mark each (maximum 3 marks)
- Provision of appropriate examples = 0.5 marks each (maximum 2 marks)

1.4. Discuss the defending tactics, which can be undertaken by the target company.

Candidates should explain different defending tactics that can be adopted by the target company. These strategies include corporate charters, Golden Parachutes, Poison Pills, White Knight and White Squire, Greenmail, Asset restructuring, recapitalization and repurchases.

Mark allocation

- Explanation of different defending tactics = 1 mark each

PART C

1.5. Discuss the possible reasons for Sirimewan to require different rates for different financial assets.

Candidates should explain different reasons for the existence of different rates for financial assets as below:

- Investors' expected return correlates with investment risk.
- Common stock investors usually demand higher returns than those investing in corporate bonds or preferred stocks.
- Surprisingly, in this case, common stock returns are lower than those of bonds and preferred stocks.
- Possible reasons include diverse risk profiles among investments (e.g., bonds and preferred stocks issued by different companies with varying risk levels).
- Risk levels of corporate bonds and preferred stocks exceed that of common stocks issued by CCC PLC

Mark allocation

Explanation of possible reasons the investor to require different rates for different financial assets with valid theoretical justifications = 1 mark for each valid point..

1.6. Recommend Sirimewan on selecting the financial assets.

Common Shares of CCC PLC

Year	0	1	2	3	4	5
Div	5.00	5.75	6.61	7.41	8.29	7.96
Constant g					44.24	
CFs		5.75	6.61	7.41	52.53	
PV		5.04	5.09	5.00	31.10	
V0	46.23					

$$V_4\, for\ constant\ growth = \frac{7.96}{(14\% - (-4\%))} = 44.24$$

Corporate Bonds of Demco PLC

$$V_0 = 40\left[\frac{1-(1+7.5\%)^{-40}}{7.5\%}\right] + \frac{1000}{(1+7.5\%)^{40}} = \mathbf{559.20}$$

Corporate Bonds of GNT PLC

$$V_0 = 60\left[\frac{1-(1+8.5\%)^{-80}}{8.5\%}\right] + \frac{1000}{(1+8.5\%)^{80}} = \mathbf{706.31}$$

Preferred stocks of Lego PLC

$$V_0 = 11\left[\frac{1-(1+15\%)^{-40}}{15\%}\right] + \frac{100}{(1+15\%)^{40}} = \mathbf{73.43}$$

(06 Marks)

Asset	Intrinsic Value (Rs.)	Market Price (Rs.)	Under/Over Price	Buy/Sell
Common Shares of CCC PLC	46.23	40	Underpriced	Buy
Corporate Bonds of Demco PLC	559.20	515	Underpriced	Buy
Corporate Bonds of GNT PLC	706.31	650	Underpriced	Buy
Preferred stocks of Lego PLC	73.43	78	Overpriced	Sell

(02 Marks)

Mark allocation

- Calculation of corporate bonds values of Demco and GNT and preferred stocks of Lego = 2 marks each
- Recomendation with respect to each asset = 0.5 marks each

1.7. Advise Sirimewan on selecting a bond if he is reluctant to invest in an asset which more susceptible to yield rate changes.

- Candidates should explain interest rate risk and why Interest rate risk is higher for bonds with longer maturities compared to that of shorter maturities.
- Candidates should provide an advice (e.g., select Demco PLC bonds) with a reason.

Mark allocation

- Explanation of interest rate risk = 1 mark
- Explanation of why interest rate risk is higher for bonds with longer maturities = 1 mark
- Recommendation = 1 mark

Part II – Answer any 03 questions.

QUESTION NO. 02

PART A

2.1. Discuss whether the objective of financial management of a multinational company (MNC) is different from a domestic firm.

Candidates' answer should cover the below points:

Key differences between MNCs and domestic firms

- Global presence and operational complexity of MNCs due to multiple locations.
- MNCs have access to international financial markets, leading to lower cost of funds.
- Advantage of risk diversification for MNCs across various markets.
- MNCs face challenges due to varying cultures, economies, and political environments.

Complexities faced by MNCs

- Intricacies MNCs encounter due to cross-border operations.
- Need to manage exchange rate risks, regulatory differences, and geopolitical factors.
- How these complexities contribute to a higher level of financial management challenges for MNCs.

Comparison with domestic firms

- Relatively simpler operational environment of domestic firms.
- Domestic firms face fewer challenges related to international complexities.

Objective of financial management

- Fundamental objective of financial management is the same for both MNCs and domestic firms.
- Clarification that the primary goal is to maximize shareholder wealth.
- Emphasis that while the objective is the same, the operational context and challenges differ between MNCs and domestic firms.

Please note that the mark allocation plan provided is a general guideline and can be adjusted based on the specific student answers.

Mark allocation (1 mark each for any valid explanation that cover the below aspects)

- Key differences between MNCs and domestic firms
- Complexities faced by MNCs
- Comparison with domestic firms
- Objective of financial management and comparison

PART B

2.2. Recommend the best strategy to follow for Dento Inc. based on the above information.

	Proceeds	Rate	Proceed in US $
Unhedged	1,500,000	1.78	2,670,000
Forward	1,500,000	1.75	2,625,000 **(1 Mark)**
	ATM Option	OTM Option	
Options	$1.74/£	$1.70/£	
Option Cost	38,023 **(0.5 Mark)** 1,500,000*0.014*1.76*(1+0.115/4)	29,875 **(0.5 Mark)** 1,500,000*0.011*1.76*(1+0.115/4)	
Proceeds if exercised	2,610,000 **(0.5 Mark)**	2,550,000 **(0.5 Mark)**	
Minimum Net proceeds	2,571,977 **(0.5 Mark)**	2,520,125**(0.5 Mark)**	
Hedge using market investment rates			
Borrow Pounds and invest in USA			
Borrow pounds for 3 months	1,465,201.47 **(01 Mark)**		
Convert to US $	2,578,754.58**(01 Mark)**		
Invest in USA	2,614,212.45**(01 Mark)**		
Substitute a Loan	2,627,106.23 **(01 Mark)**		
Invest in the firm	2,652,893.77**(01 Mark)**		

Investment in the firm is the best strategy as it provides the maximum proceedings. (01 Mark)

Mark allocation

- Should be based on the above answer = max 9 marks
- Suitable recommendation based on the calculation = 1 mark

2.3. Calculate the minimum spot rate that should prevail before options market hedge becomes more beneficial than forward market hedge.

Expected spot rate to make the option superior to forward			
	ATM	**OTM**	
Option premium per Sterling pound	0.0253	0.0199	
Forward Price	1.75	1.75	
Break-even spot rate	1.7753	1.7699	(01Mark)
Therefore, the if the spot price rises above 1.7753 (1.7699) then the ATM (OTM) Option is more profitable than forward hedging. (01 Mark)			

Mark allocation

- Should be based on the above answer.

<u>PART C</u>

2.4. Calculate the price of a Volvo in the US market immediately after the exchange rate depreciation for no arbitrage opportunity to prevail.

Currency Appreciation (SEK)	20.00%	= (0.6-0.5)/0.5	
Price Increase	5.00%	= (52,500/50,000)-1	01 Mark
Equilibrium Price	US $ 60,000	= (100,000*0.6)	01 Mark

Mark allocation

- Should be based on the above answer.

2.5. Calculate the degree of exchange rate pass through if the price increases to US $ 52,500.

Pass through 250% = (5%/20%) (01 Mark)

Mark allocation

- Should be based on the above answer.

2.6. Discuss the possible reasons for the degree of exchange rate pass through in the US market.

Candidates should cover the below points in their answer.

- Price elasticity of Volvo could be very high.
- The company is reluctant to increase the price of Volvo in the US market.
- There could be previously agreed upon contracts to deliver the goods at a certain price.

Mark allocation

- 1 mark for a valid discussion/reason.

QUESTION NO. 03

3.1. Calculate the weighted average cost of capital (WACC) for Libro PLC before accepting the new project.

$K_s = \frac{15}{100} = 15\%$ **(01 Mark)**

K_d before tax

$$1130 = 95\left[\frac{1-(1+YTM)^{-50}}{YTM}\right] + \frac{1000}{(1+YTM)^{50}}$$

$$YTM = 8.52\%$$

$K_d\ after\ tax = 8.52\%\,(1-35\%) = 5.54\%$ **(02 Marks)**

$K_p = \frac{10}{78} = 12.82\%$ **(01 Mark)**

$WACC = (50\% * 15\%) + (30\% * 12.82\%) + (20\% * 5.54\%) = 12.45\%$ **(01 Mark)**

Mark allocation

- Should be based on the above answer.

3.2. Calculate the breakpoints in the capital structure based on the available funds from each source of capital.

$$Breakpoint\ (Equity) = \frac{Mn.200}{50\%} = Mn.\,400$$

$$Breakpoint\ (Debt) = \frac{Mn.300}{20\%} = Mn.\,1500$$

(01 Marks)

Mark allocation

- Should be based on the above answer.

3.3. Calculate the marginal cost of capital (MCC) for the Libro PLC if the company accepts the new project.

$$K_N = \frac{15}{100(1-2\%)} = 15.31\%$$

$$K_p = \frac{10}{78(1-2\%)} = 13.08\%$$

$$K_d\ after\ tax = 5.54\%$$

$$MCC = (50\% * 15.31\%) + (30\% * 13.08\%) + (20\% * 5.54\%) = 12.69\%$$

(02 Marks)

Mark allocation

- Should be based on the above answer.

3.4. Discuss the implication of MCC on investment decisions.

Candidates should compare the Internal Rate of Return (IRR) and the Marginal Cost of Capital (MCC) and provide insights into the profitability and feasibility of investment decisions.

- IRR > MCC: If the IRR is higher than the MCC, it indicates that the investment is expected to generate a return greater than the cost of capital. This suggests that the investment is financially attractive and may be worth pursuing.
- IRR < MCC: If the IRR is lower than the MCC, it suggests that the investment is expected to generate a return lower than the cost of capital. In this case, the investment may not be financially viable, and alternative investment opportunities should be explored.

(02 Marks)

Mark allocation

- Should be based on the above answer outline that compares two situations where IRR > MCC and IRR < MCC.

3.5. Calculate the overall WACC for Libro PLC if the company accepts the new project.

		Total	**Weight**	**Cost**	**Weight*Cost**
Equity	Existing	2,000	47.62%	15.00%	7.14%
	New	50	1.19%	15.31%	0.18%
Debt	Existing	800	19.05%	5.54%	1.05%
Preferred stocks	Existing	1,200	28.57%	12.82%	3.66%
	New	150	3.57%	13.08%	0.47%
		4,200		**WACC**	12.51%

(05 Marks)

Mark allocation

- Should be based on the above answer.
- Each COC calculation = 1 mark (max 4 marks)
- WACC calculation = 1 mark

3.6. Discuss the impact of capital structure on the value of the business and irrelevance of the capital structure using the theories in capital structure.

Candidates should discuss the below theories while referring to the capital structure

- ‘traditional view’
- ‘trade-off theory’
- ‘Modigliani-Miller view’

Mark allocation

- Mentioning each theory = 0.5 marks (max 1.5 marks)
- Discussion of each theory with key points = 1.5 marks each (max 4.5 marks)

[Total marks for this question should be limited to 5]

QUESTION NO. 04

4.1. Discuss the elements of financial strategy in the above scenario.

Candidates should discuss the below strategies:

Investment strategy	-	Acquire a smaller company with promising growth potential
Financing strategy	-	Acquisition is made using debt capital instead using equity capital
Dividend strategy	-	Declare a dividend of Rs.10 per share

Mark allocation

- Explanation of each strategy with suitable example = 2 marks

[Maximum marks for this question should be limited to 5]

4.2. Discuss the arguments of both CFO and Chairman of MLC PLC using your knowledge on corporate finance.

Candidates answer should cover the below points:

CFO's Claim

- High payout ratio - shareholders would be happy.
- As the current investors are elderly people, they expect dividends continuously.
- If MLC PLC reduces the dividend payment, then shareholders would be unhappy, and they will take out their investment from the company which will decrease the market price (Clientele Effect). However, the true effect is based on the nature of the current stock holding of the company. If more stocks are held by young-growth oriented investors, then the market price will increase instead of going down.
- Dividend signaling theory - If the company reduces dividend payments it will be an indication of negative future prospects.
- Bird in hand theory - investors prefer dividends earned from equity instead of capital gains owing to the latter's inherent uncertainty.

Chairman's Claim

- Since the business is well-established and does not have profitable investment opportunities, currently they are having excess money (as the business is not growing).
- If MLC takes on the profitable business financed by debt capital, the company can settle the liabilities by the excess cash retained from MLC PLC.
- On the other hand, they can strengthen the company with the synergy effect of the profitable business.
- As the investment is financed heavily by debt capital, creditors will closely monitor the activities of the business. So, this involvement helps to improve the operational efficiency of the business and cut down unnecessary expenditure (cut down non-value adding activities)

Mark allocation

- Explanation of valid point = 2.5 marks each
- Maximum of 10 mark should be allocated for each of CFO's and Chairman's Claim

QUESTION NO. 05

5.1. Calculate the value of an old share before and after the dividend payment.

Value of a share before the dividend payment = 480,000,000/40,000,000 = Rs. 12.00

Value of a share after the dividend payment = 440,000,000/40,000,000 = Rs. 11.00

(02 Marks)

Mark allocation

- Should be based on the above answer.

5.2. Calculate the number of shares this company must issue.

Number of shares to be issued = Rs.40,000,000/11 =3,636,364 (02 Marks)

Mark allocation

- Should be based on the above answer.

5.3. Calculate the value of a share after the dividend payment, if this company gives up the project.

Value of a share if the company gives up the project = 360,000,000/40,000,000 = Rs. 9.00

(02 Marks)

Mark allocation

- Should be based on the above answer.

5.4. Discuss the applicability of the views of "Rightists" and the "Radical Left" on payout policy to the above scenario.

Candidates should provide an answer covering the below two views:

Rightists View

- In favor of high payouts
- Argue that the high payout leads to increase of the value of stocks.

Views of Radical Left

- Argue that paying lower dividend is rewarded in the market (i.e., high payout could affect the value of a stock negatively).

[In the scenario discussed above the value of a stock is unaffected by the payout since it was assumed that the investment policy and the borrowing policy is unaffected by the payout decision. Therefore, the views of rightists or the radical left are not applicable in this scenario.]

Mark allocation

- Explanation of Rightists View and Radical Left = 2 marks each

5.5. Discuss whether the "Trade-off theory" in the discourse of capital structure applicable to the scenario presented above.

Candidates' answer should cover the below points:

- Trade-off theory argues that there is an optimal capital structure. The value of a firm increases with the use of debt because of the PV of the tax shield on interest.
- After the optimal point, the PV of the costs of financial distress affects the value of the business negatively.
- In this scenario, since the company does not use any debt, trade-off theory is not applicable.

Mark allocation

- Each valid point = 2 marks

<u>PART B</u>

5.6. Discuss the claim of Mr. Joel regarding the first merger using your knowledge on mergers.

Candidates should provide an answer broadly covering the below points:

- Just because the EPS has increased, there is evidence to say the merger is beneficial.
- This could happen due to the bootstrap game.
- A company merging with a firm with low growth prospects and thus a lower P/E ratio by issuing stocks could experience an increased EPS after the merger, even though there is no economic value of the merger.
- Hence it is difficult to agree with the CEO's claim without considering all the other relevant information which is not available in the scenario.

Mark allocation

- Each valid point = 1 mark

5.7. Evaluate the decision to merge Tiens PLC and Biens PLC, if the shares of Biens is not overpriced.

Value of Tiens after the merge = (405+100+60-140) = Rs. 425 Mn

Value of Tiens before the merge = Rs. 405 Mn

The NPV of the merge = Rs. 20 Mn

(02 Marks)

Mark allocation

- Should be based on the above answer.

5.8. Evaluate the decision to merge Tiens PLC and Biens PLC if the claim of the financial analyst of Tiens is true.

Value of Tiens after the merge = (405+86+60-140) = Rs. 411 Mn

Value of Tiens before the merge = Rs. 405 Mn

The NPV of the merge = Rs. 6 Mn

(02 Marks)

Mark allocation

- Should be based on the above answer.

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