SECTION A – CASE QUESTIONS (Total: 50 marks)

Answer ALL of the following questions. Marks will be awarded for logical argumentation and appropriate presentation of the answers.

CASE

Sunny Capital Partners, a US private equity fund is considering to take over a leading Asian food-processing firm. The Asian food market has been growing steadily. With an increasing affluent middle class, Asia is expected to be the growth engine for the high quality food products market in the next decade. The potential target is Asian Foods Limited (AFL), headquartered in Hong Kong. Given the fund already owns similar investments in Europe and North America, it plans to leverage its management expertise in this business to buy and run an Asian target and later consolidate it with the other operations around the world. During the due diligence process, Sunny Capital Partners has found that the level of automation in the food processing of AFL is not too high. Instead, AFL still relies largely on a relatively low cost labour force in South Asia to manufacture their food products.

AFL just announced a 48.5% drop in net income for 2013 due to heavy costs and expenses related to launching organic food in markets like China, Japan and Republic of Korea. The management team of AFL predicts that similar costs and expenses will continue to affect earnings adversely in the next three years.

AFL launched its best-selling organic ice-cream in 2013 and is preparing for the debut of its organic pie fillings and cake mixes. The two products will account for more than 30% of sales each year. Further, it plans to introduce a new version of jelly, which used to be its top seller as well. The management of AFL has compiled the following data for Sunny Capital Partners about producing boxes of ice-cream in November 2013:

Total boxes manufactured	1,850,000
Good boxes of ice-cream produced and sold	1,731,000
Total processing time	19,120 minutes
Value-added processing time	9,920 minutes

Since Sunny Capital Partners has experience in managing food-processing firms around the world, it emphasised that AFL has to achieve a throughput of 79 boxes of ice-cream per minute before it will further proceed with negotiations on a takeover deal.

Donovan Lee, Chief Finance Officer (CFO) of AFL said, “It is the right time to switch gear when you are strong”. He further mentioned that AFL still managed to finish 2013 with HK$623 million of cash despite a drop in full year reported profit of 48.5%.

Exhibit 1

Consolidated statement of financial position of Asian Foods Limited as at 31 December 2013:

	HK$million
Cash	623
Marketable securities	140
Receivables	1,260
Inventories	1,827
Prepaid expenses	98
Current assets	**3,948**
Land, buildings, equipment (at cost , less depreciation)	2,324
Long term receivables and sundry assets	49
Goodwill	182
Total assets	**$6,503**
Notes payable	154
Accounts payable	602
Accrued liabilities	511
Accrued income taxes	399
Current liabilities	**1,666**
Long term notes	273
3% debentures	154
5% debentures	63
Other non-current liabilities	70
Total liabilities	**2,226**
Common stock issued	1,134
Retained earnings	3,143
Shareholders' equity	**4,277**
Total liabilities and shareholders' equity	**$6,503**
Common stock - number of shares outstanding at year-end	29,197,000

Exhibit 2

Consolidated statement of comprehensive income of Asian Foods Limited for the year ended 31 December:

All in HK$million	2013	2012	2011
Sales to customers	11,782	10,885	10,346
Cost of sales	(7,542)	(6,755)	(6,559)
Marketing, administrative and general expenses	(3,572)	(2,835)	(2,548)
Earnings before income taxes	668	1,295	1,239
Taxes on income	(329)	(637)	(637)
Net earnings	339	658	602
Dividends on common shares	(186)	(371)	(350)
Retained earnings - current year	153	287	252

<u>Question 1</u> (14 marks – approximately 25 minutes)

Assume you are Issac Chan, the analyst of Sunny Capital Partners. Write a memorandum to the Chief Investment Officer (CIO), Derek Mohammad, to address the following:

<u>Required:</u>

(a) **Compute the net asset value per share of AFL.**

(3 marks)

(b) **Name and explain the three common valuation bases of assets of AFL. Which basis is the most relevant to Sunny Capital Partners to decide on the price to pay to shareholders of AFL? Why? Justify any other valuation method that may be employed by Sunny Capital Partners to ascertain AFL's firm value on top of asset valuation alone.**

(8 marks)

(c) **Now that Sunny Capital Partners decides to make an offer to the shareholders of AFL at $119 per share in cash. What would be the meaning of net asset value per share computed in part (a) to shareholders of AFL? How do you expect AFL's shareholders will respond to the offer?**

(3 marks)

Question 2 (9 marks – approximately 16 minutes)

The industry average debt ratio of a food processing firm is about 59%. Compute the debt ratio of AFL and explain its difference with the industry. Is the debt ratio of AFL a plus or minus from Sunny Capital Partners' standpoint? Explain.

(9 marks)

Question 3 (12 marks – approximately 22 minutes)

(a) Compute the following:

- **the manufacturing cycle efficiency of AFL in producing boxes of ice-cream.**
- **the process productivity of AFL in producing boxes of ice-cream.**
- **the process quality yield of AFL in producing boxes of ice-cream.**

Does AFL satisfy the throughput requirement of Sunny Capital Partners?

(5 marks)

(b) The head of production of AFL reiterated the importance of using throughput to evaluate the performance of his unit, not earnings per share and return on equity. Do you agree? Why?

(4 marks)

(c) Do you think AFL has performed well in managing the working capital by comparing inventory level and cost of sales? Explain.

(3 marks)

<u>Question 4</u> **(15 marks – approximately 27 minutes)**

(a) **Why would AFL's reported profits for 2013 have tumbled because of rolling out new products?**

(4 marks)

(b) **How would AFL's reported profit be different if the firm has used life cycle costing techniques to account for the costs of launching the new organic food products?**

(2 marks)

(c) **Explain what message Donovan Lee, CFO of AFL, tried to convey when he said that it is the right time to switch gear (make changes) when you are strong.**

(3 marks)

(d) **Normally management's willingness to proceed with launching new products may be limited for the reason that it may likely drag down reported profits for the current year. What can be inferred about the motivational elements in AFL's management system?**

(3 marks)

(e) **Identify and explain THREE difficulties managers of AFL face in applying the product life cycle concept in this case.**

(3 marks)

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End of Section A

SECTION B – ESSAY / SHORT QUESTIONS (Total: 50 marks)

Answer ALL of the following questions. Marks will be awarded for logical argumentation and appropriate presentation of the answers.

Question 5 **(21 marks – approximately 38 minutes)**

(a) EFG Limited, a Hong Kong listed company, has 200,000 bonds outstanding that are selling at 97.5% of face value of $1,000 each. Bonds with similar characteristics are yielding 6.75% pretax. The company also has 2,250,000 shares of 7% preferred stock (par value = $100) and 7,500,000 shares of common stock outstanding. The preferred stock sells for $50 a share. The common stock has a beta of 1.34 and sells for $62 a share. The risk free rate is 2.8% and the return on the market is 11.2%. The corporate tax rate is 16.5%.

(i) What is the firm's weighted average cost of capital?

(5 marks)

(ii) Given the cost of debt is generally lower than the cost of equity, why will a company only leverage (borrow) to a certain level instead of exhausting its borrowing power before going to equity?

(3 marks)

(b) EFG Limited plans to continue further investment to expand its business. One of the directors suggested to use retained earnings first, followed by debt before issuing new shares to finance investment. This priority is based on increasing cash issuing cost. EFG Limited has been in business for only a few years and it considers its current capital structure as optimal. It has not accumulated substantial amount of cash. Due to its success, its share price is at an all time high.

(i) Explain the capital structure theory on which the director based his suggestions and the characteristics of a company using this theory in managing capital structure.

(5 marks)

(ii) Comment on the director's capital structure theory in (i) from the perspective of its implications for company valuation, capital budgeting analysis, actual cost of financing and financial flexibility.

(8 marks)

Question 6 **(10 marks – approximately 18 minutes)**

Company A, a private company, has identified two acquisition targets Companies T1 and T2, both private companies, and plans to acquire 100% of the shares. Consideration will be settled by only the shares of Company A. The Chief Executive Officer of Company A, Mr. Chan, indicated that the purpose of the acquisition is to immediately reduce the group's Debt/Equity (D/E) ratio from the current level of 300% to less than 100% in preparation for raising further debt financing as well as providing cash flow to Company A. Adjustment for fair value of net assets acquired according to HKFRS3 is assumed to be equal to HK$20 million for T1 and HK$0.45 million for T2 at date of acquisition. Current liabilities of T1 and T2 are immaterial and can be ignored.

All in HK$'000 except %	**Company A**	**T1**	**T2**
Net Asset Value	5,000	80,000	4,550
Total Assets	20,000	100,000	5,000
Sales	15,000	200,000	8,000
HKFRS 3 adjustment		20,000	450
Share consideration paid		100,000	5,000
D/E ratio %	300	25	10

Required:

Based on the facts given above,

(a) **Explain with supporting calculations which target company will meet Company A's acquisition objective?**

(4 marks)

(b) **Company A needs to perform due diligence exercise before committing to an offer. Explain four areas which Company A has to pay special attention to when performing the acquisition due diligence exercise in order to meet its acquisition objective of reducing its D/E ratio.**

(4 marks)

(c) **The objective of the acquisition is to reduce the group's Debt/Equity ratio. From this perspective, identify the potential integration and due diligence problems that Company A will encounter during the acquisition process.**

(2 marks)

<u>Question 7</u> **(19 marks – approximately 34 minutes)**

Company P is considering investing in the development of a new machine, which would have an expected life of five years. Below are the project financial estimates.

Year	0	1	2	3	4	5
All figures are in HK$'000.						
Cost of Investment	2,700					
Working capital required	270	338	405	473	473	405
Revenue		3,375	4,050	4,725	4,725	4,050
Cost of materials		675	810	945	945	810
Labour		1,013	1,215	1,485	1,485	1,350
Overhead (all incremental cash flow)		405	473	473	473	473
Total operating profit		1,282	1,552	1,822	1,822	1,417
Interest expense		324	324	324	324	324
Depreciation		540	540	540	540	540
Profit		418	688	958	958	553

These figures are based on current (year 0) prices. Both inflation and capital allowances on the equipment are not yet reflected. The following additional data also apply to the project. All cash flows are assumed to occur at the end of the year.

(1) Selling prices, working capital and cost of materials increase with inflation by 5% each year over the prior year.

(2) Labour costs and overhead expenses (assumed all incremental cash flow) increase by 15% each year over the prior year.

(3) For tax purposes, capital allowances will be available against the taxable profits of the project, at 25% a year on a reducing balance basis. The first claim will start at year 0. Cash flow from tax savings will materialise in the following year after allowances are claimed. Any unclaimed allowance at the end of 5 years will be deductible for tax purposes.

(4) The corporate tax rate is 30%, and payment is due one year in arrears.

(5) The equipment will have a zero salvage value at the end of the project's life.

(6) The company's real after-tax weighted average cost of capital is estimated to be 15%, and its nominal after-tax weighted average cost of capital is 20%. Project risk is assumed to be the same as the overall risk of the company.

Required:

Take the effect of inflation each year into consideration and show calculations.

(a) **What are the operating profits from year 1 to year 5?**

(2 marks)

(b) **How much tax is saved for each of the six years (year 1 to year 6) due to capital allowances? Show the amount and timing of tax savings realised.**

(3 marks)

(c) **What are the changes in working capital requirements for each year from year 0 to year 5?**

(3 marks)

(d) **Based on Net Present Value (NPV) analysis, should Company P invest? State the reason for your recommendation. In addition to NPV, what other factors should Company P consider before making a final decision?**

(11 marks)

* * * END OF EXAMINATION PAPER * * *