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UNIVERSITI SAINS MALAYSIA

Second Semester Examination  
2010/2011 Academic Session

April/May 2011

**CIT573 - Financial Planning & Management**  
**[Perancangan dan Pengurusan Kewangan]**

Duration : 2 hours  
[Masa : 2 jam]

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**INSTRUCTIONS TO CANDIDATE:**  
**[ARAHAN KEPADA CALON:]**

- Please ensure that this examination paper contains **THREE** questions in **ELEVEN** printed pages before you begin the examination.

*[Sila pastikan bahawa kertas peperiksaan ini mengandungi **TIGA** soalan di dalam **SEBELAS** muka surat yang bercetak sebelum anda memulakan peperiksaan ini.]*

- Answer **ALL** questions.

*[Jawab **SEMUA** soalan.]*

- You may answer the questions either in English or in bahasa Malaysia.

*[Anda dibenarkan menjawab soalan sama ada dalam bahasa Inggeris atau bahasa Malaysia.]*

- This is an 'Open Book' Examination.

*[Peperiksaan ini akan dijalankan secara 'Open Book'.]*

- In the event of any discrepancies, the English version shall be used.

*[Sekiranya terdapat sebarang percanggahan pada soalan peperiksaan, versi bahasa Inggeris hendaklah diguna pakai.]*

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1. (a) In an effort to analyze XYZ Company finances, Nur Atiqah Sorfina realized that she was missing the company's net profits after taxes for the current year. Find the company's net profits after taxes using the following information.

Return on total assets = 2%  
 Total Asset Turnover = 0.5  
 Cost of Goods Sold = \$105,000  
 Gross Profit Margin = 0.30

(10/100)

- (b) Given the following balance sheet, income statement, historical ratios and industry averages, calculate the ABC, Inc. financial ratios for the most recent year. Analyze its overall financial situation for the most recent year. Analyze its overall financial situation from both a cross-sectional and time-series viewpoint. Break your analysis into an evaluation of the firm's
- (i) liquidity.
  - (ii) activity.
  - (iii) debt.
  - (iv) profitability.

<b>Income Statement</b>	
<b>ABC, Inc.</b>	
<b>For the Year Ended December 31, 2005</b>	
Sales Revenue	\$2,080,976
Less: Cost of Goods Sold	<u>1,701,000</u>
Gross Profits	\$379,976
Less: Operating Expenses	<u>273,846</u>
Operating Profits	\$106,130
Less: Interest Expense	<u>19,296</u>
Net Profits Before Taxes	\$86,834
Less: Taxes (40%)	<u>34,810</u>
Net Profits After Taxes	<u>\$52,024</u>

**Balance Sheet**  
**ABC, Inc.**  
**December 31, 2005**

<b>Assets</b>	
Cash	\$95,000
Accounts receivable	237,000
Inventories	<u>243,000</u>
Total current assets	\$575,000
Gross fixed assets	500,000
Less: Accumulated depreciation	<u>75,000</u>
Net fixed assets	<u>\$425,000</u>
Total assets	\$1,000,000
<b>Liabilities and stockholders' equity</b>	
<b>Current liabilities</b>	
Accounts payable	\$89,000
Notes payable	169,000
Accruals	<u>87,000</u>
Total current liabilities	\$345,000
Long-term debt	<u>188,000</u>
Total liabilities	\$533,000
<b>Stockholders' equity</b>	
Common stock	255,000
Retained earnings	<u>212,000</u>
Total stockholders' equity	<u>\$467,000</u>
Total liabilities and stockholders' equity	\$1,000,000

**Historical and Industry Average Ratios**  
**ABC, Inc.**

<b>Ratio</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>Industry 2005</b>
Current Ratio	1.6	1.7	-	1.6
Quick Ratio	0.9	1.0	-	0.9
Inventory Turnover	8.1	9.3	-	8.4
Average Collection Period	33 days	37 days	-	39 days
Total Asset Turnover	2.3	2.2	-	2.2
Debt Ratio	60%	56%	-	58%
Times Interest Earned	2.5	3.5	-	2.3
Gross Profit Margin	21%	19.7%	-	20.4%
Operating Profit Margin	4.7%	4.8%	-	4.7%
Net Profit Margin	1.8%	1.6%	-	1.4%
Return on total assets	4.1%	3.5%	-	3.08%
Return on Equity	10.3%	7.9%	-	7.3%

(25/100)

2. (a) To finance a new line of product, the Aiman Toys has issued \$1,000,000 bond with a par value of \$1,000, coupon rate of 8 percent, and maturity of 30 years. Compute the price of the bond if the opportunity cost is 11 percent.

(5/100)

- (b) Fatin Computers has an outstanding issue of bond with a par value of \$1,000, paying 12 percent coupon rate semi-annually. The bond was issued 25 years ago and has 5 years to maturity. What is the value of the bond assuming 14 percent rate of interest?

(5/100)

- (c) Nur Aliya Syahmin owns stock in a company which has paid the annual dividends shown in Table 1.

**Table 1**

<b>Year</b>	<b>Dividends (\$)</b>
2003	2.89
2002	2.53
2001	2.22
2000	1.95
1999	1.71
1998	1.50

- (i) Calculate the growth rate of these dividends.

(5/100)

- (ii) Calculate the estimated dividend for 2004.

(5/100)

- (iii) The required return is assumed to be 17 percent. Using the Gordon model, calculate the per share value of the stock.

(5/100)

3. Ahmad Sufi Naim Company is contemplating the purchase of a new high-speed widget grinder to replace the existing grinder. The existing grinder was purchased 2 years ago at an installed cost of \$60,000; it was being depreciated under Modified Accelerated Cost Recovery System (MACRS) using a 5-year recovery period. The existing grinder is expected to have a usable life of 5 more years. The new grinder costs \$105,000 and requires \$5,000 installation costs; it has a 5-year usable life and would be depreciated under MACRS using a 5-year recovery period. Ahmad Sufi Naim can currently sell the existing grinder for \$70,000 without incurring any removal or cleanup costs. To support the increased business resulting from purchase of the new grinder, accounts receivable would increase by \$40,000, inventories by \$30,000, and accounts payable by \$58,000. At the end of 5 years, the existing grinder is expected to have a market value of zero; the new grinder would be sold to net \$29,000 after removal and cleanup costs and before taxes. The firm is subject a 40% tax rate. The estimated *earnings before depreciation, interest, and taxes* over the 5 years for both the new and the existing grinder are shown in the following table.

Year	Earnings before depreciation, interest, and taxes	
	New grinder (\$)	Existing grinder (\$)
1	43,000	26,000
2	43,000	24,000
3	43,000	22,000
4	43,000	20,000
5	43,000	18,000

The following table contains the applicable MACRS depreciation percentages:

Recovery year	Rounded Depreciation Percentages by Recovery Year Using MACRS for First Four Property Classes			
	Percentage by recovery year			
	3 years	5 years	7 years	10 years
1	33%	20%	14%	10%
2	45	32	25	18
3	15	19	18	14
4	7	12	12	12
5		12	9	9
6		5	9	8
7			9	7
8			4	6
9				6
10				6
11				4
Totals	100%	100%	100%	100%

- (a) Calculate the *initial investment* associated with the replacement of the existing grinder by the new one.

(10/100)

- (b) Determine the *incremental operating cash inflows* associated with the proposed grinder replacement.

(Note: Be sure to consider the depreciation in year 6.)

(10/100)

- (c) Determine the *terminal cash flow* expected at the end of year 5 from the proposed grinder replacement.

(10/100)

- (d) Depict on a time line the *relevant cash flows* associated with the proposed grinder replacement decision.

(10/100)

**KERTAS SOALAN DALAM VERSI BAHASA MALAYSIA**

[CIT573]

- 7 -

1. (a) Dalam usaha untuk menganalisa kewangan syarikat XYZ, Nur Atiqah Sorfina menyedari bahawa beliau tidak mempunyai keuntungan bersih selepas cukai syarikat bagi tahun semasa. Cari keuntungan bersih selepas cukai syarikat dengan menggunakan maklumat berikut.

Pulangan Ke atas Jumlah Aset = 2%

Pusing Ganti Aset Total = 0.5

Kos Barang Dijual = \$105,000

Margin Untung Kasar = 0.30

(10/100)

- (b) Diberi kunci kira-kira, penyata pendapatan, nisbah sejarah dan purata industri, kirakan nisbah-nisbah kewangan untuk tahun paling terkini bagi syarikat ABC, Inc. Analisis keseluruhan keadaan kewangan bagi tahun paling terkini. Analisis keseluruhan keadaan kewangan dari kedua-dua padangan keratan lintang dan siri masa. Pecahkan analisis anda kepada satu penilaian syarikat terhadap
- (i) Kecairan.
  - (ii) Aktiviti.
  - (iii) Hutang.
  - (iv) keuntungan.

<b>Penyata Pendapatan</b>	
<b>Syarikat ABC, Inc.</b>	
<b>Bagi Tahun Berakhir Disember 31, 2005</b>	
Hasil Jualan	\$2,080,976
Tolak: Kos Barang Dijual	<u>1,701,000</u>
Untung Kasar	\$379,976
Tolak: Belanja Kendalian	<u>273,846</u>
Operating Profits	\$106,130
Tolak: Belanja Faedah	<u>19,296</u>
Keuntungan Bersih Sebelum Cukai	\$86,834
Tolak: Cukai (40%)	<u>34,810</u>
Keuntungan Bersih Selepas Cukai	<u>\$52,024</u>

**Kunci Kira-kira  
Syarikat ABC, Inc.  
Disember 31, 2005**

<b>Asset-Aset</b>	
Tunai	\$95,000
Akaun-akaun Terimaan	237,000
Inventori	<u>243,000</u>
Jumlah Aset-aset Semasa	\$575,000
Aset-aset Semasa Kasar	500,000
Tolak: Susutnilai Berkumpul	<u>75,000</u>
Aset-aset Tetap Bersih	<u>\$425,000</u>
Jumlah Aset-aset	\$1,000,000
<b>Tanggung-tanggungan dan ekuiti pemegang saham</b>	
<b>Tanggung Semasa</b>	
Akaun-akaun kena bayar	\$89,000
Nota-nota kena bayar	169,000
Akruan-akruan	<u>87,000</u>
Jumlah tanggungan-tanggungan semasa	\$345,000
Hutang jangka panjang	<u>188,000</u>
Jumlah tanggungan-tanggungan	\$533,000
<b>Ekuiti Pemegang-pemegang saham</b>	
Saham biasa	255,000
Perolehan-perolehan tertahan	<u>212,000</u>
Jumlah ekuiti pemegang-pemegang saham	<u>\$467,000</u>
Jumlah tanggungan-tanggungan dan ekuiti pemegang-pemegang saham	\$1,000,000

**Sejarah dan Nisbah-nisbah Purata Industri  
Syarikat ABC, Inc.**

Nisbah	2003	2004	2005	Industri 2005
Nisbah Semasa	1.6	1.7	-	1.6
Nisbah Cepat	0.9	1.0	-	0.9
Peralihan Inventori	8.1	9.3	-	8.4
Tempoh Kutipan Purata	33 hari	37 hari	-	39 hari
Pusing Ganti Aset Total	2.3	2.2	-	2.2
Nisbah Hutang	60%	56%	-	58%
Faedah Masa Diperolehi	2.5	3.5	-	2.3
Margin Untung Kasar	21%	19.7%	-	20.4%
Margin Untung Kendali	4.7%	4.8%	-	4.7%
Margin Untung Bersih	1.8%	1.6%	-	1.4%
Pulangan Keatas Aset-aset Total	4.1%	3.5%	-	3.08%
Pulangan Keatas Ekuiti	10.3%	7.9%	-	7.3%

(25/100)

2. (a) Untuk membiayai satu barisan baru produk, Aiman Toys telah mengeluarkan \$1,000,000 bon dengan nilai tara \$1,000, dengan kadar kupon 8 peratus, dan 30 tahun kematangan. Kirakan harga bon jika kos melepas ialah 11 peratus.
- (5/100)
- (b) Fatin Computers mempunyai bon “outstanding issue” dengan nilai tara \$1,000, membayar 12 peratus kupon dua kali setahun. Bon tersebut dikeluarkan 25 tahun yang lepas dan mempunyai 5 tahun kematangan. Apakah nilai bon seandainya kadar faedah 14 peratus?
- (5/100)
- (c) Nur Aliya Syahmin mempunyai saham dalam satu syarikat yang membayar dividen tahunan seperti di Jadual 1.

**Jadual 1**

Tahun	Dividen (\$)
2003	2.89
2002	2.53
2001	2.22
2000	1.95
1999	1.71
1998	1.50

- (i) Kirakan kadar pertumbuhan dividen-dividen ini.
- (5/100)
- (ii) Kirakan anggaran dividen bagi 2004.
- (5/100)
- (iii) Kadar diminta dianggarkan 17 peratus. Dengan menggunakan model Gordon, kirakan nilai sesaham bagi saham ini.
- (5/100)

3. Syarikat Ahmad Sufi Naim berfikir-fikir untuk membeli satu mesin pengisar berkelajuan tinggi baru untuk menggantikan pengisar sedia ada. Pengisar sedia ada telah dibeli 2 tahun yang lalu dengan kos pemasangan \$60,000; ianya disusutnilai di bawah “Modified Accelerated Cost Recovery System” (MACRS) dengan menggunakan tempoh pemulihan 5-tahun. Pengisar sedia ada dijangka mempunyai jangka hayat berguna 5 tahun lagi. Kos pengisar baru \$105,000 dan memerlukan kos pemasangan \$5,000; ianya mempunyai hayat berguna 5 tahun dan akan disusutnilai di bawah MACRS menggunakan 5-tahun tempoh pemulihan. Ahmad Sufi boleh menjual pengisar sedia ada pada \$70,000 tanpa dikenakan apa-apa kos-kos pembuangan dan pembersihan. Untuk menyokong peningkatan perniagaan hasil daripada pembelian pengisar baru, akaun-akaun terimaan akan bertambah sebanyak \$40,000, inventori sebanyak \$30,000, dan akaun-akaun kena bayar sebanyak \$58,000. Di akhir tahun 5, pengisar sedia ada dijangka mempunyai nilai pasaran sifar; pengisar baru akan dijual pada \$29,000 bersih selepas kos-kos pembuangan dan pembersihan dan selepas cukai-cukai. Syarikat tersebut tertakluk kepada 40% kadar cukai. Anggaran pendapatan selepas susutnilai, faedah, dan cukai-cukai bagi 5 tahun untuk kedua-dua pengisar baru dan sedia ada adalah seperti ditunjukkan dalam jadual berikut.

Tahun	Pendapatan sebelum susutnilai, dan cukai-cukai	
	Pengisar baru (\$)	Pengisar sedia ada (\$)
1	43,000	26,000
2	43,000	24,000
3	43,000	22,000
4	43,000	20,000
5	43,000	18,000

Jadual berikut mempunyai aplikasi peratusan susutnilai MACRS:

Tahun pemulihan	Peratusan Susutnilai Dibulatkan Mengikut Tahun Pemulihan Menggunakan MACRS untuk Empat Kelas Harta Pertama			
	Peratusan mengikut tahun pemulihan			
	3 tahun	5 tahun	7 tahun	10 tahun
1	33%	20%	14%	10%
2	45	32	25	18
3	15	19	18	14
4	7	12	12	12
5		12	9	9
6		5	9	8
7			9	7
8			4	6
9				6
10				6
11				4
Totals	100%	100%	100%	100%

- (a) Kirakan *pelaburan permulaan* berkenaan dengan pengantian pengisar sedia ada dengan yang baru.

(10/100)

- (b) Tentukan *tambahan tunai masuk operasi* berkenaan dengan pengisar pengantian yang dicadangkan.

(Nota: Pastikan untuk mengambil kira susutnilai dalam tahun 6)

(10/100)

- (c) Tentukan *aliran tunai akhir* yang dijangkakan pada akhir tahun 5 daripada pengantian pengisar yang dicadangkan.

(10/100)

- (d) Tunjukan garisan masa *aliran-aliran tunai berkaitan* berkenaan dengan keputusan pengantian pengisar yang dicadangkan.

(10/100)