PEPERIKSAAN AKHIR
SEMESTER KEDUA SESI 2006/2007

KOD/NAMA KURSUS : WFF3013 / KEWANGAN KORPORAT
TARIKH : 6 MEI 2007 (AHAD)
MASA : 8:30 PAGI – 11:00 PAGI (2 ½ JAM)
TEMPAT : BK3 / BK4 / BK7 (FWB)

ARAHAN:
1. Kertas peperiksaan ini mengandungi LAPAN (8) soalan di dalam EMPAT BELAS (14) halaman bercetak tidak termasuk kulit hadapan.
2. Jadual Nilai Masa Wang dan semua formula dilampirkan di TIGA (3) halaman terakhir.
3. Sila jawab SEMUA soalan dalam ruangan yang disediakan.

INSTRUCTIONS:
1. This examination paper contains EIGHT (8) questions on FOURTEEN (14) printed pages excluding the cover page.
2. The Time Value of Money Tables and all formula are attached in the last THREE (3) pages.
3. Answer ALL questions in the space provided.

NO. MATRIK: ____________________________
(dengan perkataan) ________________________________
(dengan angka) ________________________________

NO. KAD PENGENALAN: ____________________________

NAMA PENSYARAH: ____________________________

KUMPULAN: ________ NOMBOR MEJA : ________

JANGAN BUKA KERTAS PEPERIKSAAN INI SEHINGGA DIBERI ARAHAN
QUESTION 1 (10 MARKS)

A. Explain how financial leverage affects a company’s market risk.

_Jelaskan bagaimana leveraj kewangan mempengaruhi risiko pasaran syarikat._  
(5 marks/markah)

B. Sejati Corporation’s capital budget this year is so large that the use of outside equity is contemplated. However, management does not want to sell new stock because they believe that the stock is currently selling lower than its true value. For that reason, Sejati is considering a temporary departure from the firm’s ‘optimal’ capital structure by borrowing the funds it would otherwise have raised in the equity market. Which of the capital structure theories does this action follow? Explain your answer.

_Belanjawan modal bagi Syarikat Sejati pada tahun ini adalah besar di mana penggunaan ekuiti luaran perlu dipertimbangkan. Walau bagaimanapun, pihak pengurusan tidak mahu menerbitkan saham baru disebabkan mereka percaya bahawa saham syarikat kini dijual pada harga yang lebih rendah daripada nilai sebenarnya. Oleh yang demikian, Sejati bercadang untuk berganjak dari struktur modal optimum syarikat buat sementara waktu dengan membuat pinjaman dana yang sepatutnya didapat daripada pasaran ekuiti. Teori struktur modal manakah yang diikuti oleh tindakan ini? Jelaskan jawapan anda._  
(5 marks/markah)
QUESTION 2 (10 MARKS)

A. Al-Hambra’s bond is priced to sell at face value of RM1,000. The bonds with annual coupon of RM90 will mature in 20 years. Each bond issued comes with 30 detachable warrants and each warrant gives the owner the right to buy one share of Al-Hambra’s stock at RM20 per share. Similar bonds without warrants yield 10%. What is the estimated value of the warrant?

Bon Al-Hambra dijual pada nilai muka RM1,000. Bon dengan kupon tahunan sebanyak RM90 ini akan matang dalam 20 tahun. Setiap bon yang diterbitkan mengandungi 30 waran boleh asing dan setiap satu waran memberikan pemiliknya hak untuk membeli satu syer saham Al-Hambra pada harga RM20 se syer. Bon jenis yang sama tanpa waran menghasilkan pulangan 10%. Bearapakah nilai anggaran waran tersebut?

(5 marks/markah)

B. If a company expects to have additional funds requirements in the future, would you recommend that it uses convertibles or straight bonds? Explain TWO (2) factors that would influence your decision?

Sekiranya sebuah syarikat mempunyai keperluan dana tambahan di masa hadapan, adakah anda akan mencadangkan ia menggunakan bon bolehhtukar atau tanpa ciri bolehhtukar? Jelaskan DUA (2) faktor yang akan mempengaruhi keputusan anda.

(5 marks/markah)
QUESTION 3 (8 MARKS)

Kemasik is planning to enter the software development business. They expect to spend an initial cost of RM1 million and make annual after tax cash flow of RM750,000 for 10 years. The discount rate for the project is 20%. At the end of one year they will revise their forecast. If it is a success, they can revise their forecast of annual after tax cash flow to RM1.2 million. If it is a failure, the annual after tax cash flow will be only RM200,000. The probability of success is 0.7, while the probability of failure is 0.3. Kemasik also has the option to abandon the project at this time and recover RM850,000 million from the initial investment.

A. Calculate the Net Present Value (NPV) of the project if the revision process is not considered.

_Kirakan Nilai Kini Bersih (NPV) projek ini jika proses semakan tidak diambil kira._

(2 marks/markah)

B. Calculate the NPV of the project if both the revision process and the abandonment option are taken into consideration.

_Kirakan NPV projek ini jika kedua-dua proses semakan dan opsyen pengabaian diambil kira._

(6 marks/markah)
QUESTION 4 (12 MARKS)

You are helping a plastic manufacturing company to make a decision on purchasing a new machine to produce heavy-duty containers. The machine will cost RM1.5 million and will be depreciated based on straight line over a 5-year period to zero value. The variable cost per container is RM150. Fixed cost per year associated with the production is estimated to be RM500,000. The company estimates that the demand for the container will be 10,000 units per year. Tax rate is 27% and the appropriate discount rate for the project is 15%.

A. Calculate the accounting break-even price.

*Kirakan harga pulang-modal perakaunan.*

(2 marks/markah)

B. Calculate the present value break-even price.

*Kirakan harga pulang-modal nilai kini.*

(6 marks/markah)

C. Explain why the present value breakeven analysis is superior to accounting breakeven analysis.

*Huraikan kenapa analisis pulang-modal nilai kini lebih baik berbanding analisis pulang-modal perakaunan.*

(4 marks/markah)
QUESTION 5 (12 MARKS)

M&M Dividend Irrelevance Theory assumes that capital markets are perfect. Describe THREE (3) other dividend policy theories and state the market imperfections that are associated with each one of them.

Teori Ketidakrelevan M& M mengandik pasaran modal adalah sempurna. Terangkan TIGA (3) teori polisi dividen yang lain dan nyatakan jenis tidak sempurna pasaran yang berkaitan dengan setiap satu teori ini.

(12 marks/markah)
QUESTION 6 (12 MARKS)

Syarikat Sawit Malaysia Sdn. Bhd. is planning to increase its production capacity by adding a new oil-refining machine in its plant in Kuantan. The company intends to lease the machine instead of purchasing it. Teguh Leasing Berhad, a local leasing company is offering Syarikat Sawit the opportunity to lease the machine for six years. The machine that costs RM120,000 will be depreciated over six years using the straight-line method and will have zero value at the end of its useful life. The before-tax interest rate is 10%. The applicable tax rate for Syarikat Sawit is 27%, while the tax rate for Teguh Leasing is 30%.

A. Calculate the maximum annual lease payment (reservation price) for Syarikat Sawit.

*Kirakan bayaran pajakan tahunan maksimum (harga tempahan) bagi Syarikat Sawit.

(5 marks/marakah)

B. Calculate the minimum annual lease payment (reservation price) for Teguh Leasing.

*Kirakan bayaran pajakan tahunan minimum (harga tempahan) bagi Teguh Leasing.

(6 marks/marakah)

C. What is the negotiating range of the lease?

*Berapakah julat rundingan pajakan ini?

(1 mark/marakah)
QUESTION 7 (16 MARKS)

The recent drop in interest rates has triggered Mustika Raja Corporation to consider refunding its outstanding RM100 million, 15 percent coupon, 20-year bond, which was issued five years ago. At the time of the issue, Mustika Raja had paid RM4 million in flotation costs and the company has been amortizing these costs over the 20-year life of the bond. In today’s market, it would be plausible for Mustika Raja to retire its currently outstanding bond and issue new bonds at a lower coupon. The merchant bank hired by Mustika Raja has indicated that Mustika Raja could sell a new RM100 million, 15-year issue at an interest rate of 12.5 percent. However, a call premium of 10 percent would be imposed on Mustika Raja to retire the old bonds, and the flotation costs on the new issues would amount to RM6 million. Mustika Raja plans to issue the new bonds one month before the old bonds are called. During the one-month interim period, Mustika Raja will invest the proceeds in short-term government securities bearing a 9 percent coupon. The corporate tax rate is 28 percent.

A. Calculate the investment outlay of this refunding plan.

Kirakan pelaburan permulaan pelan pendanaan semula ini.

(5 marks/markah)
B. Calculate the annual cash flows (annual savings) of this refunding plan.

*Kirakan aliran tunai tahunan (penjimatan tahunan) pelan pendanaan semula ini.*

(5 marks/markah)

C. What is the NPV of this bond refunding? Should Mustika Raja continue with this refunding plan?

*Berapakah nilai kini bersih pendanaan bon ini? Adakah Mustika Raja patut meneruskan pelan pendanaan semula ini?*

(3 marks/markah)

D. List **TWO (2)** factors that would influence Mustika Raja’s decision to refund now rather than later?

*Senaraikan DUA (2) faktor yang mungkin mempengaruhi keputusan Mustika Raja untuk membuat pendanaan semula sekarang berbanding dengan kemudian?*

(3 marks/markah)
QUESTION 8 (20 MARKS)

A. Motorbike Bhd., a motorcycle manufacturer, is in the process of acquiring Bicycle Bhd., a bicycle manufacturer. Both companies do not have debt in their capital structure. The current market values of the two companies as separate entities are RM20 million and RM10 million, respectively. Motorbike estimates that by combining the two companies, it will reduce the marketing and administrative costs by RM500,000 per year in perpetuity. Motorbike can either pay RM14 million cash for Bicycle or offer Bicycle 50 percent holding in Motorbike. The applicable discount rate for incremental cash flows is 10 percent. (Assume that there is no taxes).

i. Calculate the synergy resulting from the merger.

*Kirakan sinergi hasil daripada penggabungan ini.*

(2 marks/markah)

ii. Calculate the value of Bicycle to Motorbike.

*Kirakan nilai Bicycle kepada Motorbike.*

(2 marks/markah)

iii. Calculate the cost to Motorbike if Motorbike offers 50 percent of its stock to Bicycle.

*Kirakan kos kepada Motorbike sekiranya Motorbike menawarkan 50 peratus sahamnya kepada Bicycle.*

(3 marks/markah)
iv. Calculate the NPV to Motorbike for both the cash offer and the stock offer. Which method of acquisition should Motorbike use?

*Kirakan nilai kini bersih kepada Motorbike untuk kedua-dua tawaran tunai dan tawaran saham. Kaedah pengambilalihan yang mana satukah perlu Mortorbike gunakan?*  

(5 marks/markah)

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B. Ipoh Corporation Bhd. has a market value of RM1.2 billion and 60 million shares outstanding, while Kelang Corporation Bhd. has a market value of RM400 million and 30 million shares outstanding. Ipoh Corporation is considering to acquire Kelang Corporation and its management analyzed that as a result of the acquisition, the combined value of the company will be RM2 billion, and that Kelang Corporation can be acquired at a premium of RM200 million.

i. If Ipoh Corporation offers 20 million shares to exchange for the 30 million shares of Kelang Corporation, what will be the after-acquisition stock price of Ipoh Corporation?

*Sekiranya Ipoh Corporation menawarkan 20 juta sahamnya sebagai pertukaran untuk 30 juta saham Kelang Corporation, berapakah harga saham Ipoh Corporation selepas pengambilalihan ini?*  

(2 marks/markah)
ii. To make the value of a stock offer equivalent to a cash offer of RM600 million, what would be the proper exchange ratio of the two stocks?

Untuk menjadikan nilai tawaran saham bersamaan dengan RM600 juta tawaran tunai, berapakah sepaturnya nisbah pertukaran yang sesuai untuk kedua-dua saham tersebut?

(6 marks/markah)
### Table A.2  Present Value of an Annuity of $1 per Period for a Periods

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### Financial Calculations Keys

- **PV** = Present Value
- **FV** = Future Value
- **i** = Interest Rate
- **n** = Number of Periods

#### Example Calculation

**Present Value (PV)**

\[ PV = \frac{FV}{(1 + i)^n} \]

Where:
- **FV** = Future Value
- **i** = Interest Rate
- **n** = Number of Periods
Some Useful Formulas

1 Present Value
The discounted value of T future cash flows
\[ PV = \frac{C_1}{1 + r} + \frac{C_2}{(1 + r)^2} + \cdots + \frac{C_T}{(1 + r)^T} = \sum_{t=1}^{T} \frac{C_t}{(1 + r)^t} \]

2 Net Present Value
Present value minus initial costs
\[ NPV = PV - Cost \]
\[ NPV = C_0 + \sum_{t=1}^{T} \frac{C_t}{(1 + r)^t} \]

3 Perpetuity
The value of C received each year, forever
\[ PV = \frac{C}{r} \]

4 Annuity
The value of C received each year for T years
\[ PV = \frac{C}{r} (1 - \frac{1}{(1 + r)^T}) \]

5 Growing Perpetuity
The value of a perpetuity that grows at rate g, where the first payment is C
\[ PV = \frac{C}{r - g} \]

6 Growing Annuity
The value of a T-period annuity that grows at the rate g, where the first payment is C
\[ PV = C \left[ \frac{1}{(1 - g)} \right] \left[ \frac{1 + g}{1 + r} \right]^T \]

7 Measures of Risk for Individual Assets
\[ Var(R_A) = \sigma_A^2 = \text{Expected value of } (R_A - \bar{R}_A)^2 \]
\[ SD(R_A) = \sigma_A = \sqrt{Var(R_A)} \]
\[ Cov(R_A, R_B) = \sigma_{AB} = \text{Expected value of } [(R_A - \bar{R}_A)(R_B - \bar{R}_B)] \]
\[ Corr(R_A, R_B) = \rho_{AB} = Cov(R_A, R_B) / \sigma_A \sigma_B \]

8 Expected Return on a Portfolio of Two Assets
\[ R_p = X_A \bar{R}_A + X_B \bar{R}_B \]

9 Variance of a Portfolio of Two Assets
\[ \sigma_p^2 = X_A^2 \sigma_A^2 + 2X_A X_B \rho_{AB} \sigma_A \sigma_B + X_B^2 \sigma_B^2 \]

10 Beta of a Security
\[ \beta_A = \frac{Cov(R_A, R_p)}{\sigma_p^2} \]

11 Capital Asset Pricing Model
\[ R_A = R_F + \beta_A (R_M - R_F) \]

12 k-Factor Model (Chapter 11)
\[ R_A = R_F + \beta_{A1} F_1 + \beta_{A2} F_2 + \cdots + \beta_{Ak} F_k + e_A \]

13 Leverage and the Cost of Equity
Before tax:
\[ r_s = r_0 + \frac{B}{\bar{S}} (r_0 - r_d) \]
After tax:
\[ r_s = r_0 + \frac{B}{\bar{S}} (1 - T_c) (r_0 - r_d) \]

14 Value of the Firm under Corporate Taxes
\[ V_t = V_0 + T_c B \]

15 Weighted Average Cost of Capital
\[ \frac{S}{S + B} r_s + \frac{B}{S + B} r_d (1 - T_c) \]

16 Equity Beta
\[ \beta_{\text{equity}} = \frac{\text{Equity}}{\text{Debt + Equity}} \times \beta_{\text{equity}} \]

Corporate tax case:
\[ \beta_{\text{equity}} = \frac{\text{Equity}}{\text{Equity} + (1 - T_c) \text{Debt}} \times \beta_{\text{equity}} \]

17 Black-Scholes Model
\[ C = \text{SN}(d_1) - d_2 \text{SN}(d_2) \]
\[ d_1 = \frac{\ln(S/E) + (r + \frac{1}{2} \sigma^2)T}{\sigma \sqrt{T}} \]
\[ d_2 = d_1 - \sigma \sqrt{T} \]

18 Sustainable Growth
\[ \text{Growth} = \frac{p \times (1 - d + (1 + L))}{T - (p \times (1 - d) \times (1 + L))} \]