



UTHM

Universiti Tun Hussein Onn Malaysia

UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
SEMESTER II
SESSION 2013/2014**

COURSE NAME : REAL ESTATE INVESTMENT AND APPRAISALS
COURSE CODE : BPE34003
PROGRAMME : 3 BPD
EXAMINATION DATE : JUNE 2014
DURATION : 3 HOURS
INSTRUCTION : ANSWER ALL QUESTIONS

THIS QUESTION PAPER CONSISTS OF **SIX (6)** PAGES

Q1 A building owner is evaluating the following alternatives for leasing space in an office building for the next five (5) years:

Net lease with steps: Rent will be RM15 per square foot for the first year and will increase by RM1.50 per square foot each year until the end of the lease. All operating expenses will be paid by the tenant.

Net lease with CPI adjustment: The rent will be RM16 per square foot for the first year. After the first year, the rent will be increased by the amount of any increase in the CPI. The CPI is expected to increase 3 percent per year.

Gross lease: Rent will be RM30 per square foot each year with the lessor responsible for payment of all operating expenses. Expenses are estimated to be RM9 during the first year and increase by the RM1 year thereafter.

Gross lease with expense stop and CPI adjustment: Rent will RM22 per square foot the first year and increase by the full amount of any change in the CPI after the first year with the expense stop at RM9 per square foot. The CPI and operating expenses are assumed to change by the same amount as outlined above.

(a) Using 10 percent discount rate, compute the effective rent for each lease alternative.

(10 marks)

(b) Explain each lease alternative in term of risks and costs to the property owner.

(10 marks)

- Q2** You are advising a group of investors who are considering the purchase of a shopping complex. They would like to finance 75 percent of the purchase price. A loan has been offered to them on the following terms: the contract interest rate is 10 percent and will be amortized with monthly payments over 25 years. The loan also will have an equity participation of 40 percent of the cash flow after debt service. The loan has a “lockout” provision that prevents it from being prepaid before year 5.

The property is expected to cost RM5 million. NOI is estimated to be RM475,000, including overages, during the first year, and to increase at the rate of 3 percent per year for the next five years. The property is expected to be worth RM6 million at the end of five years. The improvement represents 80 percent of the cost and depreciation will be over 39 years. Assume a 28 percent tax bracket for all income and capital gains and a holding period of five years.

- (a) By taking into account the equity participation, compute the Before Tax Internal Rate of Return (BTIRR) and After Tax Internal Rate of Return (ATIRR).
(15 marks)
- (b) Before proceed with the proposed loan, investor must ensure that this will be a favorable leverage to the firm. Analyse whether such favorable leverage exists with the proposed loan structure.
(15 marks)

Q3 The Equine Corporation is considering opening an office in a new market that would allow it to increase its annual sales by RM2.5 million. Cost of goods sold is estimated to be 40 percent of sales, and corporate overhead would be increase by RM300,000, not including the cost either acquiring or leasing office space. The corporation will have to invest RM2.5 million in office before considering the cost of owning or leasing the office space.

A small office building could be purchased for sole use by the corporation at a total price of RM3.9 million, of which RM600,000 of the purchase price would represent land value, and RM3.3 million would represent building value. The cost of the building would be depreciated over 39 years. The corporation is in 30 percent tax bracket.

An investor is willing to purchase the same building and lease it to the corporation from RM45,000 per year for a term of 15 years, with the corporation paying all real estate operating expenses (absolute net lease). Real estate operating expenses are estimated to be 50 percent of the lease payments.

Estimates are that the property value will increase over the 15-year lease term for a sale price of RM4.9 million at the end of the 15 years. If the property is purchased, it would be financed with an interest-only mortgage for RM2,730,000 at an interest rate of 10 percent with a balloon payment due after 15 years.

- (a) Determine return on the incremental cash flow from owning versus lease. (10 marks)
- (b) Prepare an analysis that evaluate benefit to the corporation from opening the office building under the lease or owning assumptions. (15 marks)

Q4 As a financial advisor for the Sepang Development, you have been given the construction and marketing studies for the proposed Sepangria office project. Several potential sites have been identified, but a final decision has not been made. You manager needs to know how much she can afford to pay for the land and still manage to return 16 percent on the entire project over its lifetime.

The strategic plan call for a construction phase of one year and an operation phase of five years, after which time the property will be sold. The marketing staff says that a 1.3-acre site will be adequate because the initial study indicate that this site will support an office building with a gross leasable area (GLA) of 26,520 square feet. The gross building area (GBA) will be 31,200 square feet, giving a leasable ratio of 85 percent. The marketing staff further assures you that the space can be rented for RM19 per square foot. The head of the construction division maintains that all direct costs (excluding interest carry and all loan fees) will be RM2.4 million.

The Bank Awam will provide the construction loan for the project. The bank will finance all of the construction costs, site improvements, and interest carry at annual rate of 13 percent plus a loan origination fees of RM1,200. The construction division estimates that the direct cost draws will be taken in six equal amounts commencing with the first month after close. The permanent financing for the project will come at the end of the first year from the Reliable Bhd. at an interest rate of 11.5 percent with a 4 percent prepaid loan fee. The loan has an eight-year term and is to be paid monthly over a 25-year amortization schedule. No financing fees will be included in either loan amount. Sepang Development will fund acquisition of the land with its own equity.

Sepang Development expects tenant reimbursements for the project to be RM3.25 per square foot and the office building to be 75 percent leased during the first year of operation. After that, vacancies should average about 5 percent per year. Rents, tenants reimbursement, and operating expenses are expected to increase 3 percent per year during the lease period. The operating expenses are expected to be RM9.50 per square foot. The final sale price is based on the Net Operating Income (NOI) in the sixth year of the project (the fifth year of operation) capitalized at 9.5 percent. The project will incur sales expenses of 4 percent. Sepang Development is concerned that it may not be able to afford to pay for the land and still earn 16 percent (before taxes) on its equity.

- (a) Determine the amount of equity needed to fund improvements.

(10 marks)

- (b) Develop a statement of cashflow from operation and eventual sale towards at the end of holding period.

(15 marks)

-END OF QUESTION-

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No.	Item	Equation
1.	Future Value (FV)	$FV = PV (1 + i)^n$
2.	Present Value (PV)	$PV = FV (1 + i)^{-n}$
3.	Future Value Interest Factor Annuity (FVIFA)	$FVIFA = PMT \left(\frac{(1 + i)^n - 1}{i} \right)$
4.	Present Value Interest Factor Annuity (PVIFA)	$PVIFA = PMT \left(\frac{1 - (1 + i)^{-n}}{i} \right)$

Where,

PMT = Payment,

i = Interest rate, and

n = Period.

