UTHM
Universiti Tun Hussein Onn Malaysia

UNIVERSITI TUN HUSSEIN ONN MALAYSIA

FINAL EXAMINATION
SEMESTER I
SESSION 2017/2018

COURSE NAME : PRINCIPLES OF FINANCE FOR REAL ESTATE MANAGEMENT / REAL ESTATE FINANCE

COURSE CODE : BPE 22802 / BPE 23402

PROGRAMME CODE : BPD

EXAMINATION DATE : DECEMBER 2017 / JANUARY 2018

DURATION : 2 HOURS

INSTRUCTION : ANSWER **ALL** QUESTIONS

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THIS QUESTION PAPER CONSISTS OF **FOUR (4)** PAGES

Q1   As a project manager, your task is to make decision along with the finance manager on the investment between two mutually exclusive projects, Project X and Project Y. Each project has a cost of RM1,000,000, and the cost of capital for each is 12% per annum. The projects expected cash flows are tabulated in **Table Q1** below.

Table Q1 : Cash Flow for Project X and Project Y

Year	Expected Net Cash Flows	
	Project X (RM)	Project Y (RM)
0	-1,000,000	-1,000,000
1	650,000	350,000
2	300,000	350,000
3	300,000	350,000
4	100,000	350,000

(a)   Calculate each project's payback period.

(4 marks)

(b)   Calculate each project's net present value (NPV).

(8 marks)

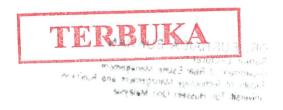(c)   Calculate each project's internal rate of return (IRR).

(8 marks)

(d)   Justify which project should be chosen based on your answer in (a), (b) and (c).

(5 marks)

Q2   In setting up your own company, you intend to make a huge loan from one of the local bank. Being optimistic about the business, you are very confident that you shall be able to meet up with the yearly installments. However, it is vital that you calculate the loan repayment before you make the final decision. You are intending to borrow RM250,000 to be paid in equal payment for the next 5 years (starting 2018) at 10% interest rate per annum.

(a)   Calculate the yearly repayment amount.

(5 marks)

(b)   Prepare an amortizations schedule.

(10 marks)

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(c) Assume you have an option to save the money required, RM250,000 instead of making loan.

(i) Calculate the end of year deposits if you need 4 years at the interest rate of 8% per annum.

(5 marks)

(ii) Calculate the end of year deposits if the interest is compounded quarterly using the information stated in (c)(i) above.

(5 marks)

Q3 While vacationing, Maria saw the vacation home of her dreams. It was listed with a sale price of RM500,000. The only catch is that Maria is 40 years old and plans to continue working until she is 65. Still, she believes that prices generally increase at the overall rate of inflation. Maria believes then she can earn 9% annually after taxes on her investments. She is willing to invest a fixed amount at the end of each of the next 25 years to fund the cash purchase of such house when she retires.

(a) Inflation is expected to average 5% per year for the next 25 years.

Calculate the cost of Maria's dream house when she retires.

(5 marks)

(b) Calculate how much must Maria invests at the end of each of the next 25 years to have the cash purchase of the house when she retires.

(5 marks)

(c) Calculate the difference in total cash investment if Maria invests at the beginning instead of at the end of each of the next 25 years,.

(5 marks)

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Q4 Adan Systems, Inc., is in discussion with its investment bankers regarding the issuance of new bonds. The investment banker has informed the firm that different maturities will carry different coupon rates and sell at different prices based on **Table Q4**. The firm must choose among several alternatives. In each case, the bonds will have a RM1,000 par value and flotation costs will be RM30 per bond. The company is taxed at a rate of 40% per annum.

Table Q4: Bonds alternatives.

Alternative	Coupon rate	Time to maturity (years)	Premium or discount
A	9%	16	RM250
B	6%	7	Par

Calculate the after-tax cost of financing with each of the following alternatives.

(15 marks)

Q5 Currently, Bima Industries can sell 15-year, RM1,000-par-value bonds paying annual interest at a 12% coupon rate. As a result of current interest rates, the bonds can be sold for RM1,010 each; flotation costs of RM30 per bond will be incurred in this process. The firm is in the 40% tax bracket.

(a) Calculate the net proceeds from the sale of the bond.

(5 marks)

(b) Prepare the cash flows from the firm's point of view over the maturity of the bond.

(5 marks)

(c) Estimate the following using the approximation formula;

(i) before-tax cost of debt.

(5 marks)

(ii) after-tax costs of debt.

(5 marks)

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- END OF QUESTIONS -