UNIVERSITI KUALA LUMPUR
MALAYSIAN INSTITUTE OF INFORMATION TECHNOLOGY

FINAL EXAMINATION
JANUARY 2016 SEMESTER

COURSE CODE	:	IEB 20503
COURSE NAME	:	INTRODUCTION TO FINANCE
PROGRAMME NAME	:	BACHELOR OF BUSINESS TECHNOLOGY (HONS) IN COMPUTER ENTREPRENEURIAL MANAGEMENT
DATE	:	27 MAY 2016
TIME	:	3.00 pm – 5.30 pm
DURATION	:	2.5 HOURS

INSTRUCTIONS TO CANDIDATES

1. Please CAREFULLY read the instructions given in the question paper.
2. This question paper has information printed on both sides of the paper.
3. This question paper consists of TWO (2) sections only; Section A and Section B
4. Answer ALL questions in Section A and THREE (3) questions in Section B.
5. Please write your answers on the answer booklet provided.
6. Answer all questions in English language ONLY.
7. Formula table has been appended for your reference

THERE ARE 5 PAGES OF QUESTIONS, INCLUDING THIS PAGE.

SECTION A (Total: 40 marks)

INSTRUCTION: Answer ALL questions.
Please use the answer booklet provided.

Question 1

(a) A real estate investor feels that the cash flow from a property will enable her to pay a lender $15,000 per year, at the end of every year, for 10 years. How much should the lender be willing to loan her if he requires a 9% annual interest rate (annually compounded, assuming the first of the 10 equal payments arrives one year from the date the loan is disbursed)?

(5 marks)

(b) You are borrowing $80,000 for 25 years at 10% nominal annual interest compounded monthly. How much must your monthly payments be if you will completely retire the loan over the 25-year period (i.e., what is the level payment annuity with a present value of $80,000)?

(5 marks)

(c) Alex has $4864.77 in his money market account currently. If the annual interest rate is 3.9%, and the interest is compounded biweekly, how much money was in his account 2 years ago? (1 year = 52 weeks)

(5 marks)

(d) Joe deposits $22,000 at the end of each year for 7 years, in an account paying 6 % compounded annually, how much will he have on deposit after 7 years?

(5 marks)

(e) A Company A has issued bonds that have a 9 percent coupon rate, payable semiannually. The bonds mature in 8 years & have a face value of RM1,000 & a yield to maturity of 8.5 percent. What is the price of the bond?

(5 marks)

(f) A real estate investment has the following expected cash flows:

Year	Cash Flows
1	$10,000
2	25,000
3	50,000
4	35,000

The discount rate is 8 percent. What is the investment's present value?

(5 marks)

(g) You intend to purchase a 10-year, $1,000 face value bond that pays interest of $60 every 6 months. If your nominal annual required rate of return is 10 percent with semiannual compounding, how much should you be willing to pay for this bond?

(5 marks)

(h) Joe Gomez Electronics needs to arrange financing for its expansion program. Bank A offers to lend Gomez the required funds on a loan in which interest must be paid monthly, and the quoted rate is 8 percent. Bank B will charge 9 percent, with interest due at the end of the year. What is the difference in the effective annual rates charged by the two banks?

(5 marks)

SECTION B (Total: 60 marks)

INSTRUCTION: Answer THREE (3) of the following questions.
Please use the answer booklet provided.

Question 2

Risk and return are two terms that cannot be separated in finance and it is a very central knowledge in finance.

(a) Define what you understand with risk and return

(6 marks)

(b) In a portfolio context, an asset's risk can be divided into 2 components; (1) Diversifiable risk and (2) market risk. Please explain both components.

(6 marks)

(c) Please discuss what are the risks associated with Unit Trust Funds

(8 marks)

Question 3

Your company has to make a choice between two projects, because the available resources in money and kind are not sufficient to run both at the same time. Each project would cost RM250,000.

i. The first project is a process optimization which would result in a cost reduction of RM120,000 per year. This benefit would be achieved immediately after the end of the project.

ii. The second project would be the development of a new product which could produce the following net profits after the end of the project:

Year 1:	RM	15,000
Year 2:	RM	125,000
Year 3:	RM	220,000

Assumed is a discount rate of 5% per year. Looking at the present values of the benefits of both of these projects in the first 3 years, what is your decision? Show your calculation.

(20 marks)

Question 4

Three potential investment projects (A, B, and C) at Don Corporation all require the same initial investment, have the same useful life (3 years) and have no expected salvage value. Expected net cash inflows from these three projects each year is as follows:

	A	B	C
Year 1.....	$1,000	$2,000	$3,000
Year 2.....	$2,000	$2,000	$2,000
Year 3.....	$3,000	$2,000	$1,000

Calculate the net present value for each project and determine the best project to be undertaken by Don Corporation.

(20 marks)

Question 5

Don Production has the following capital structure:

Security	Weight	Cost
Debt	40 %	6 %
Preference Share	10 %	9 %
Ordinary Share	50 %	12 %

The corporate tax rate is 29%.

(a) Calculate the firm's current WACC

(9 marks)

The firm's financial advisor suggests a new capital structure for Don Production as follows:

Security	Weight	Cost
Debt	60 %	9 %
Preference Share	5 %	10 %
Ordinary Share	35 %	14 %

(b) Recalculate the company's WACC.

(9 marks)

(c) Which plan is the optimal for the firm? Justify your answer.

(2 marks)

END OF EXAMINATION PAPER

Financial Value	Formula
Future Value	$FV = PV \cdot (1+i)^t$
Present Value	$PV = \frac{FV}{(1+r)^t}$
Future Value of Ordinary Annuity	$\mathrm{FVA_n} = \mathrm{PMT}\left(\frac{(1+i)^n - 1}{i}\right)$
Present Value of Ordinary Annuity	$PVA_n = PMT\left[\frac{1-\frac{1}{(1+i)^n}}{i}\right]$
Future Value of Annuity Due	$\mathrm{FVA_n(Due)} = \mathrm{PMT}\left(\frac{(1+i)^n - 1}{i}\right)(1+i)$
Present Value of Annuity Due	$\mathrm{PVA_n} = \mathrm{PMT}\left(\frac{1-\frac{1}{(1+i)^n}}{i}\right)(1+i)$
Effective Annual Rate (AER)	$EAR = (1+\frac{i}{n})^n - 1$
Amortization	$R = P\left[\frac{\frac{r}{n}}{1-\left(1+\frac{r}{n}\right)^{-nt}}\right]$ **P** = Loan Amount **R** = Periodic Payment **r** = Interest Rate
Zero Coupon Bond Value	$Zero\,Coupon\,Bond\,Value = \frac{F}{(1+r)^t}$
Bond Price	$\text{Bond Value} = \text{INT}\left[\frac{1-\frac{1}{(1+r)^t}}{r}\right] + \frac{F}{(1+r)^t}$
Constant Growth Stock Value	Constant Growth: $P_0 = \frac{Div}{r-g}$

Common Shares Valuation	$P_N = \frac{D_N(1+g)}{r_s - g}$
Weighted Average Cost Of Capital	$WACC = w_d.r_d(1-T) + w_{ps}.r_{ps} + w_s.r_s$