UNIVERSITI TUN HUSSEIN ONN MALAYSIA

FINAL EXAMINATION
SEMESTER I
SESSION 2016/2017

TERBUKA

COURSE NAME	:	PRINCIPLES OF FINANCE FOR REAL ESTATE MANAGEMENT
COURSE CODE	:	BPE 22802
PROGRAMME CODE	:	BPD
EXAMINATION DATE	:	DECEMBER 2016 / JANUARY 2017
DURATION	:	2 HOURS
INSTRUCTION	:	ANSWER **ALL** QUESTIONS

THIS QUESTION PAPER CONSISTS OF **FIVE (5)** PAGES

Q1 Mutiara Company Inc., a manufacturer of exercise apparel, is considering replacing an existing piece of equipment with a more sophisticated machine. The firm pays 40 percent taxes on ordinary income and capital gains. Using the following information in **Table Q1(a)** and **Q1(b)**;

Table Q1(a): Facts of the machines

Existing Machine	Proposed Machine
Cost = RM100,000	Cost = RM150,000
Purchased 2 years ago	Installation = RM20,000
Depreciation using MACRS over a 5-year recover schedule	Depreciation using MACRS over a 5-year recover schedule
Current market value = RM105,000	
Five year usable life remaining	Five year usable life expected

Table Q1(b): Earnings before the depreciation and taxes

Existing Machine		Proposed Machine	
Year 1	RM160,000	Year 1	RM170,000
Year 2	RM150,000	Year 2	RM170,000
Year 3	RM140,000	Year 3	RM170,000
Year 4	RM140,000	Year 4	RM170,000
Year 5	RM140,000	Year 5	RM170,000

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(a) Calculate the initial investment.

(5 marks)

(b) Compute the incremental annual cash flows.

(10 marks)

(c) At a 15 percent cost of capital;

(i) Calculate the net present value.

(8 marks)

(ii) Advise Mutiara Company Inc. whether the machine should be replaced.

(2 marks)

Q2 Fuzie's Services is interested in making sure it has enough money to finance its assets. The company's current assets and fixed assets for the months of January through December are given in **Table Q2**.

Table Q2: Business asset requirements

Fuzie's Services			
Month	Current Assets (RM)	Fixed Assets (RM)	Total Assets (RM)
January	120,000	140,000	260,000
February	116,000	140,000	256,000
March	110,000	140,000	250,000
April	94,000	140,000	234,000
May	80,000	140,000	220,000
June	82,000	140,000	222,000
July	80,000	140,000	220,000
August	74,000	140,000	214,000
September	76,000	140,000	216,000
October	66,000	140,000	206,000
November	80,000	140,000	220,000
December	100,000	140,000	240,000

(a) Determine the average monthly seasonal and permanent funds requirement.

(15 marks)

(b) Assume short-term funds costs 4.5 percent and the interest rate for long-term funds is 12 percent.

Calculate the total cost of financing for conservative and agressive strategy.

(6 marks)

(c) Calculate the net working capital for the month of June and December if its current liabilities was RM58,000 and RM64,000 respectively.

(4 marks)

Q3 Nuff Folding Box Company Inc. is considering purchasing a new gluing machine which costs RM50,000 and installation cost of RM2,500. This machine would be partially offset by the sale of an existing gluer. The existing gluer originally costs RM10,000 and is already four years old. It is being depreciated under (MACRS), **Table Q3**, using a five-year recovery schedule and can currently be sold for RM15,000. The existing gluer has a remaining useful life of five years, after which, its market value would be zero.

Over its five-year life, the new machine should reduce operating costs (excluding depreciation) by RM17,000 per year. Training costs for the new machine operator will be a one-time cost of RM5,000 which should be included in the initial outlay. The new machine will be depreciated under MACRS using a five-year recovery period. The firm has a 12 percent cost of capital and a 40 percent tax on ordinary income and capital gains.

Table Q3: MACRS rate

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

Calculate;

(a) The terminal cash flow associated with a proposed capital expenditure.
(7 marks)

(b) The net present value of the project.
(8 marks)

(c) The internal rate of return of the project.
(10 marks)

Q4 Maggie's Gold Coins, Inc. is considering shortening its credit period from 30 days to 20 days and believes, as a result of this change, its average collection period will decrease from 36 days to 30 days. Bad debt expenses are also expected to decrease from 1.2 percent to 0.8 percent of sales. The firm is currently selling 300,000 units but believes as a result of the change, sales will decline to 275,000 units. On 300,000 units, sales revenue is RM4,200,000, variable costs total RM3,300,000, and fixed costs are RM300,000. The firm has a required return on similar-risk investments of 15 percent.

Calculate;

(a) The reduction in profit contribution due to the decline in sales.

(10 marks)

(b) Net gain/loss from implementing the proposed plan.

(15 marks)

- END OF QUESTIONS -