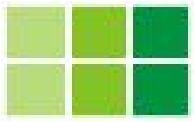

Institute of Incorporated Public Accountants

Final Admitting Examination

Module 14: Financial Management

Thursday, 28th. May 2015

2pm – 5pm

Instructions: **Answer five questions**

Section A
All three questions to be attempted

Section B
Two of the three questions to be attempted

Formulas and Discount Tables provided at the rear of this paper

Time Allowed: **3 Hours**

Section A: All three questions to be attempted

Section A (70 marks in Total)

Question 1

The Board of Soundair Technologies Ltd. are considering the company's capital investment options for the coming year and are evaluating the following two potential investment opportunities.

Investment A:

This investment would involve Soundair Technologies Ltd. setting up a subsidiary in the principality of Eirebass at a cost of €8,000,000. This investment would consist of €7,000,000 fixed assets and working capital of €1,000,000. The subsidiary would produce a product which is expected to achieve annual sales of €3,000,000 and incur cash expenditures of €1,350,000 in year one. The company expects that sales revenues and cash expenditures would increase by 10% a year after that.

The life of the product is planned to be four years, at the end of which the company expects the realisable value of the subsidiary's fixed assets to be €2,000,000. It also expects to be able to sell the rights to make the product for €480,000 at the end of the four years.

To persuade Soundair Technologies Ltd. to locate the subsidiary in Eirebass, the Government of Eirebass has offered the company an effective corporate tax rate of zero on all profits earned by the subsidiary.

Investment B:

The directors of Soundair Technologies Ltd. are also currently considering launching a new product. The production of the new product will require the purchase of new machinery. The following information is available for the project:

Probabilities	0.3	0.15	0.4	0.15
Net Cash Flow Year 1	€800,000	€1,200,000	€1,440,000	€1,728,000
Net Cash Flow Year 2	€1,200,000	€1,800,000	€2,160,000	€2,592,000
Net Cash Flow Year 3	€1,080,000	€1,620,000	€1,944,000	€2,332,800
Cost (Immediate Outlay)	€4,400,000			
Residual/Scrap Value	€800,000			

I.e. the probability that the Net Cash Flow in year 1 is €800,000 is 30%; that it is €1,200,000 is 15%, etc.

The company discounts all projects lasting five years duration or less at a cost of capital of 6% and employs the straight-line method of depreciation for all fixed assets. Neither project would increase the working capital of the company. The company has sufficient funds to meet all capital expenditure requirements.

P.T.O.

Required:

a) You, as a financial management analyst, have been asked to advise the board of Soundair Technologies Ltd. (in the form of a briefing report) which of the two investments should be undertaken. In your report you are to make use of the NPV method, as the members of the board believe this is the best to use and have asked you to use it.

(15 marks)

b) A minority of board members feel that the Internal Rate of Return (IRR) should also be used as either an alternative or a complementary method of investment appraisal.

Calculate the IRR of investments A and B (you should use the company's cost of capital and an interest rate of 15% to start your calculation of the IRR) and comment accordingly.

(6 marks)

c) Explain when or if firms should discount projects using (i) the cost of equity, (ii) the cost of debt, (iii) the cost of retained profits or (iv) the cost of the WACC? You should use the information and your results in parts (a) and (b) as examples.

(4 marks)

(25 Marks in Total)

Question 2

PrimeTab Ltd. distribute secure microchips and on average distribute 20,000 imported secure microchips each year. Currently an order takes two weeks to arrive and on average they order every three months i.e. four orders a year. For the 50 weeks of the year the company is open there is little seasonal variation in demand for its products. While day-to-day demand is unpredictable it does not vary greatly from week to week.

The wholesale cost to PrimeTab per microchip is €250. Administrative charges, including a fixed delivery and transport charge is €25,000 per order, irrespective of size. In addition there is an annual inventory holding charge, this is equivalent to 15% of the cost of a microchip.

A local supplier of similar chips has now offered to supply PrimeTab but at €2 higher wholesale prices, i.e. €252 per chip. However as they are local, the administrative charges per order would fall to just €15,000 per order, and they could fulfil an order in just one week. The annual inventory holding charge would remain unchanged.

Having appraised your current suppliers of this offer, they have responded with the following suggestion, to outsource the ordering process to them. At their own cost they would fully integrate their order processing I.T. system with yours, such as to allow for a "Just In Time" delivery system. As such there would be no ordering or holding costs for you. However they would require a wholesale price increase of €9.60 to pay for this, i.e. to €259.60 per chip.

Mr O'Brien, the managing director of PrimeTab has decided to use this new development to reassess the current inventory ordering system. He has heard of Economic Order Quantity, (EOQ), "Just In Time", (JIT) and "Outsourcing" and has asked you as the Finance director to prepare a report on the current inventory ordering system and any proposals for change.

Required:

This **report** should include:

1. Arguments for and against adopting EOQ over the current system.
2. Arguments for and against using the new local supplier over the current supplier.
3. Arguments for and against adopting EOQ over JIT system involving outsourcing.
4. Describe some of the issues that might arise in a changeover to a new supplier or a new inventory control system or to outsourcing it.
5. Finally, make recommendations as to the appropriateness of using the EOQ model here and whether to change suppliers and / or the inventory control system.

All discussions should be supported by appropriate calculations.

Note: please use the notation in the "Formulas and Discount Tables" section (or, if you use an alternative, please explain all components clearly):

(25 Marks in Total)

Question 3

OnMeBike Plc. (OMB) is an Irish based fitness products company. It can avail of the following rates:

	On Deposit (% p.a.)	Borrowing (% p.a.)
3 Month Euro €:	0.5%	2.5%
3 Month Stg. £:	1.8%	3.8%

	Spot Rates		3 Month Forward Rates	
Stg. £ / €	0.7312	0.7328	0.7322	0.7338

Assume three months to be exactly one quarter of a year.

a) OMB must pay a UK supplier £1,200,000 in three months time. Assume OMB have no spare cash on hand. What is the cost in Euro in three months' time with a money market hedge? **(7 Marks)**

b) What effective 3 month Stg. £ / € forward rate does this represent? Confirm this by determining the 3 month Stg. £ / € forward rate using the interest rate parity formula. **(4 Marks)**

c) Given the actual forward rates available to OMB should they use a money market hedge or the actual forward rate? Show your calculations and explain. **(3 Marks)**

d) Outline the three approaches to short term finance and in particular working capital characterised as (i) "conservative" / "prudential" or (ii) "matching" / "hedging" or (iii) "aggressive". Explain the trade-off that must be made between maintaining liquidity and remaining profitable in the context of the three approaches. **(6 Marks)**

Note: please use the notation in the "Formulas and Discount Tables" section (or, if you use an alternative, please explain all components clearly):

(20 Marks in Total)

Section B: two (2) of the following three (3) questions to be attempted

Section B (30 marks in Total)

Question 4
"Passenger numbers take off at Ryanair", Sunday Business Post, March 8 2015.

Required:
Write short notes on three (3) of the following six (6) topics to a newly appointed member of the board of Ryanair. Briefly explain to her three of the following and discuss how they could apply to Ryanair:

a) Options contracts and how they are used to hedge a position.

b) Financial future contracts and how they are used to hedge a position.

c) Advantages and disadvantages of using currency swaps.

d) Advantages and disadvantages of using interest rate swaps.

e) The difference between transaction and translation risk.

f) The difference between economic risk and political risk.

(3 x 5 marks)
(15 Marks in Total)

Question 5

"*Adviser backs Elliott's drive for shake-up at Alliance Trust. Institutional Shareholder Services which advises investors in about 20 per cent of UK stock market backed the Elliott proposal to place three new directors on to the board. It said the move would be beneficial to the 127-year-old investment trust.*" Financial Times, April 17 2015.

Required:

In the context of Corporate Governance Codes and regulations:

a) Discuss the factors that should be taken into consideration for the appointment of non-executive directors (NEDs) to the board of a listed Plc.

(9 marks)

b) Given recent corporate governance scandals and reports on corporate governance discuss the effectiveness of the new June 2010 Corporate Governance code.

(6 marks)
(15 Marks in Total)

P.T.O.

Question 6

"*HP, when it splashed out a generous £11bn for the UK software maker Autonomy in 2011, funded the cost partly from its offshore cash. This relatively painless source of financing may well have contributed both to HP's willingness to overpay as well as its apparent lack of due diligence before the deal – it took a well-documented $5bn writedown on Autonomy in 2012. And Autonomy wasn't the only ill-fated deal HP was tempted into by a fat cash cushion. It spent half its $63bn of cash flow between 2007 and 2012 on acquisitions – remember Palm handheld computers?*" Financial Times, April 30, 2014.

Required:

a) In advance of a merger or acquisition evaluate critically the information required for, and issues that should be covered by due diligence.

(9 marks)

b) Outline briefly six contributing factors which explain why shareholders of acquiring companies rarely benefit from takeovers. In your answer, you should refer to recent examples of acquisitions where there was no clear evidence of any benefit arising for the acquiring company shareholders.

(6 marks)
(15 Marks in Total)

Formulas and Discount Tables

Note: please use the following notation (or, if you use an alternative, please explain all components clearly):

Present Value of a once off Future Payment:
PV = FV / (1+r)^t

Where: PV = Present Value
FV = Future Value
r = Discount rate
t = Number of periods i.e. time.

IRR (Approx) = a + {[A / (A - B)] x (b- a)}

Where: a = lower discount rate
b = higher discount rate
A = NPV at lower discount rate
B = NPV at higher discount rate

The Economic Order Quantity, Q* = $\sqrt{\frac{2SD}{IV}}$
Annual Ordering Costs = SD / Q
Annual Holding costs = IVQ / 2

Where: S = Forecast annual usage
D = Ordering cost per order
I = Annual inventory holding charge as a proportion of V
V = Cost per unit in stock

The interest rate parity formula:

F a/b = S a/b x {(1+ra) / (1 + rb)}

Where: F a/b = Forward rate of currency a to 1 unit of currency b
S a/b = Spot rate of currency a to 1 unit of currency b
ra = rate of interest of currency a (deposit rate)
rb = rate of interest of currency b (borrowing rate)

Present Value of €1 to be received after n periods = 1 / (1+r)^n

Period	Interest rate per period or "r" or Discount rate, (in % terms)																			
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%
1	0.9901	0.9804	0.9709	0.9615	0.9524	0.9434	0.9346	0.9259	0.9174	0.9091	0.9009	0.8929	0.8850	0.8772	0.8696	0.8621	0.8547	0.8475	0.8403	0.8333
2	0.9803	0.9612	0.9426	0.9246	0.9070	0.8900	0.8734	0.8573	0.8417	0.8264	0.8116	0.7972	0.7831	0.7695	0.7561	0.7432	0.7305	0.7182	0.7062	0.6944
3	0.9706	0.9423	0.9151	0.8890	0.8638	0.8396	0.8163	0.7938	0.7722	0.7513	0.7312	0.7118	0.6931	0.6750	0.6575	0.6407	0.6244	0.6086	0.5934	0.5787
4	0.9610	0.9238	0.8885	0.8548	0.8227	0.7921	0.7629	0.7350	0.7084	0.6830	0.6587	0.6355	0.6133	0.5921	0.5718	0.5523	0.5337	0.5158	0.4987	0.4823
5	0.9515	0.9057	0.8626	0.8219	0.7835	0.7473	0.7130	0.6806	0.6499	0.6209	0.5935	0.5674	0.5428	0.5194	0.4972	0.4761	0.4561	0.4371	0.4190	0.4019