Institute of Incorporated Public Accountants

Final Admitting Examination

Module 14: Financial Management

XXXXday XXXXth. August 2015

XXXXpm – XXXXpm

Instructions: **Answer five questions**

Section A
All three questions to be attempted

Section B
Two of the three questions to be attempted

Time Allowed: **3 Hours**

Section A: All three questions to be attempted

Section A (70 marks in Total)

Question 1 Part (a)
Denti-Head Trading PLC (DHT) wishes to estimate its cost of capital for use in analysing projects that are similar to its existing projects. The following figures have been extracted from their most recent accounts:

	€'000	€'000
Fixed assets		42,000
Investments		7,000
Current Assets	20,000	
Less - current liabilities	15,500	
		4,500
		53,500
Ordinary Share Capital:		
Issued - 500,000 @ €2		1,000
Reserves		39,250
Shareholders' funds		40,250
10% Irredeemable Debentures		7,000
5% Preference Shares		5,000
Deferred taxation		500
Corporation Tax		750
		53,500

The current market value of DHT plc's ordinary shares is €28.00 per share cum-dividend. DHT's beta is 1.5, the risk-free rate is 1 percent, and the return on the ISEC index (the market proxy) is 8 percent. An annual dividend of €2,000,000 is due for payment shortly. The 10% debentures are irredeemable and are trading at a current market value of €95.00, a €5 discount to their issue price of €100. Semi-annual interest of €5m has just been paid on the debentures.

The 5% preference shares are trading at a current market value of €8.00, a €2.00 discount to their issue price of €10. Interest has just been paid on these preference shares. There have been no issues or redemptions of ordinary shares or debentures during the past five years. The corporation tax rate of 12.5% has pertained throughout the past five years without change. Assume that tax relief on the debenture interest arises at the same time as the interest payment.

Required
Ignoring the potential new investment, calculate the cost of capital that DHT should use as a discount rate when appraising new marginal investment opportunities.

(15 marks)

Part (b)
Explain with the aid of diagrams if and/or how the proportion of debt and equity in a firm, (i.e. its capital structure), affects its WACC.

(10 Marks)
(25 marks in Total)

Question 2

Hollow Tree Ltd., (HTL) a large producer of wood products is considering a merger with a wind energy firm Willow Wind Ltd., (WWL). WWL have invested heavily in new technology but have seen reduced sales due to Far East competition. HTL mainly supply wood for the newspaper and general paper pulp sector, a steady but competitive market. HTL is expected to continue to produce low steady returns for investors. As WWL sales are linked to the energy industry their revenues are quite erratic.

Currently the expected return on WWL shares is 12%, the standard deviation of returns is 15% while for HTL the expected return on its shares is 9%, the standard deviation of returns is 11%. 60% of shares in the combined group will be allocated to WWL with the remaining 40% allocated to HTL. No synergies are expected to result from the merger.

WWL's management realise that by merging with HTL the groups expected returns would be less than they are currently enjoying. But given their recent setbacks WWL's management would consider the merger a success if the groups expected return and risk was similar to what HTL enjoys now. HTL's management simply hope that the merger will increase the return to HTL shareholders while not significantly increasing their risk.

Independent consultants have calculated that WWL has a beta of 2.0, HTL has a beta of 1.1 while there is no correlation between returns on WWL and HTL, i.e. the correlation is zero i.e. (ρ_{AB} is 0). They have further calculated that the risk free return is 1%; the expected return on the market is 8% while the Standard Deviation of the market is 20%.

Required:

a) Find the expected return and standard deviation of the merged group and using standard deviation as a measure of risk, comment on whether the objectives of the two groups from the merger would be achieved. State and explain what would be your recommendation to the management of both groups as to the advisability of the merger?

(4 marks)

b) Assuming the consultant's calculations are correct, find the beta of the merged group. Then using beta as a measure of risk, calculate the expected return for HTL and WWL separately and as a merged group. Comment on whether the objectives of the two groups from the merger would be achieved.

(5 marks)

c) If CAPM holds in the long run what does this predict about the future price movements of HTL and WWL, individually if they do not merge or for the group if they do merge? Draw the Security Market line, (SML). Show on your diagram and explain what you expect would happen to the share price and return if HTL and WWL merge and if they did not.

(10 marks)

d) Compare and contrast the main differences to achieving a listing on the Enterprise Securities Market (ESM) compared to the Main Securities Market (MSM) of the Irish Stock Exchange (ISE).

(6 marks)

(25 marks in total)

Note: CAPM Formulas etc. are at the end of this paper!

Question 3

RJ's Ltd. is one of the largest traditional instrument makers in Ireland. Despite trying to reduce costs RJ's expects to be in a negative cash position in the coming year with weekly sales to be only €60,000 per week. Not coincidently its bankers have increased its overdraft rate to 12%.

The financial director has noted that cash is generally received evenly each day of the week, Monday through Friday, with the 8am post and recorded by 9am. Cash recorded and lodged on bank opening (10am) can be credited with interest from that day.

The current procedure in RJ's is to make bank lodgements twice a week every Monday and Thursday. However the sales director feels that as it costs €30 per lodgement, RJ's could save by making just one lodgement per week, each Friday. The managing director suggested that RJ's should lodge every Tuesday and Friday. Finally the head of security has suggested that RJ's should lodge cash every day as she was nervous holding large amounts of cash on the premises.

Alternatively RJ's Ltd. could obtain the services of a factor.

The factor has said that they could reduce the current collection period from 12 weeks to 8 weeks. The basic fee for the debtor collection service would be 2% of RJ's' annual turnover, payable annually in arrears. However this would be offset by (i) an annual saving in back office and collection expenses of €40,000 and (ii) the reduction in the collection period.

In addition the factor could advance RJ's up to 75% of invoice value of the factored debts. However should RJ's choose to take up the offer of the advance there would be a commission of 1% charged on the gross amount advanced, plus interest of 6% p.a., BOTH to be applied on a simple weekly basis. Both the interest and the commission would be deducted from the sum advanced to RJ's. On receipt of cash from RJ's' invoiced debtors, the factor will immediately pay to RJ's all sums outstanding concerning that invoice.

For simplicity, you may assume:

- a 364 day year made up of 52 weeks each of 7 days,
- that banks remain open for only five days a week for lodgements , (ignore bank holidays etc.)
- but that you may receive / pay interest seven days a week,
- Finally you may ignore taxation issues such as DIRT tax etc.

Summary of details

(i)	**Weekly sales:**	€60,000 hence annual sales: €3,120,000 Cost to make a lodgement: €30 The companys overdraft rate: 12% Current collection period: 12 weeks
(ii)	**Factoring services:**	Basic collection fee: 2% Administration saving: €40,000
(iii)	**Finance / Lending services:**	Advance: 75% Commission: 1% Interest simple: 6% per annum
(iv)	**Factoring selling points:**	New collection period: 8 weeks

Assume that there are 364 days in year **P.T.O.**

REQUIREMENT:

a) Calculate the annual cost of each of the four alternatives; (i) the current situation; Monday and Thursday, (ii) Friday only, (iii) Tuesday and Friday or (iv) daily and based solely on costs recommend the best option.

(8 marks)

b) Calculate the annual factoring costs as a percentage of funds improvement for a full year under each of the following separate conditions:

i) Only avail of the collection service, average collection period falls to 8 weeks.

ii) The average collection period falls to 8 weeks and RJ's use the finance facilities.

iii) Given your answers in parts (bi) and (bii) briefly discuss the appropriateness of RJ's using the services outlined.

(12 marks)
(20 marks in Total)

P.T.O.

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

Section B (30 marks in Total)

Question 4
Write short notes on three (3) of the following six (6) topics:

a) The important direct and indirect costs of bankruptcy.

b) The term structure of interest rates and the Normal, Flat and the Inverse Yield Curves.

c) In capital structure decisions: the pecking order for financing.

d) Explain the difference between sensitivity analysis and scenario analysis.

e) The Important factors that influence how a company will finance a takeover; using shares, cash or a combination of both.

f) The Important factors that influence how a entrepreneur will raise capital for a new business from external sources of finance.

(3 x 5 marks)
(15 marks in total)

Question 5

"One of the primary drivers of the ageing US bull market – share buybacks and dividend payouts has hit the accelerator" ... "Since the start of 2010, companies have spent $3.3tn ($3,300bn) on share buybacks and dividends, as the US economy has recovered and investors sought blue-chip names with stable and growing returns". Financial Times, 5 December 2014.

Requirement:

a) Contrast (i) the irrelevancy argument; (ii) the bird in the hand theory and (iii) the tax differential theory in the dividend policy debate.

(9 Marks)

b) Why might a firm engage in a share buyback and what are the advantages and disadvantages of doing so?

(6 Marks)

Your answers should be supported where possible with real examples of dividend policies of publicly quoted companies.

(Total 15 Marks)

Question 6

"One in four of the large listed UK companies that warned about profits last year cited exchange rates as a reason for worse than expected performance". ... "The other most commonly cited reason for profit warnings was competition and pricing pressures". Financial Times, 26 January 2015.

REQUIREMENT:

a) Other than profit maximisation list FOUR examples of financial targets and FOUR examples of non financial targets and explain why even if they result in less short term profits they can still help to meet the primary financial objective which is to maximise shareholder wealth.

(6 Marks)

b) If markets are efficient as predicted by the Efficient Markey Hypothesis what will be the expected effects on share price in the run up and following the announcement of a profit warning? In your answer distinguish between the three forms of efficiency.

(4.5 Marks)

c) Outline a different hedging technique that you feel would be appropriate to reduce each of the following uncertainties and explain your choice:

(i) An adverse movement in the exchange rate for an importer who buys goods on credit in a foreign currency.

(1.5 Marks)

(ii) An exporter who must issue a price list in a foreign currency that is 'live' for the next three months but is unsure if foreign customers will make an order and if they do is unsure how much they will order and hence does not know how much foreign exchange risk, if any, they will need to cover and when!

(1.5 Marks)

(iii) Will obtain a large amount of foreign currency in three months time that will be required three months later and hence the treasurer has decided not to convert back to local currency but to put on deposit in the foreign currency but is unsure what rate of interest they will receive on the deposit.

(1.5 Marks)
(Total 15 marks)

Formulas:

For a two asset portfolio, the expected return of a portfolio
= $E(r_p)= (X_A.r_A) + (X_B.r_B)$

Where: X_A = the proportion invested in asset A
X_B=the proportion invested in asset B
r_A= the expected return of asset A and
r_B= the expected return of asset B

For a two asset portfolio, the Beta of a portfolio
= $\beta p= (X_A.\beta_A) + (X_B.\beta_B)$

Where: X_A = the proportion invested in asset A
X_B=the proportion invested in asset B
β_A= the beta of asset A and
β_B= the beta of asset B

For a two asset portfolio, the standard deviation of the portfolio
= $\boldsymbol{\sigma_P = \sqrt{\{(X_A^2.\sigma_A^2) + (X_B^2.\sigma_B^2) + 2(X_A.X_B\rho_{AB}.\sigma_B.\sigma_B)\}}}$

Where: X_A = the proportion invested in asset A
X_B=the proportion invested in asset B
ρ_{AB}= the correlation of asset A with asset B
σ_A= the standard deviation of asset A and
σ_B= the standard deviation of asset B

CAPM
Expected return on Asset A = $E(r_A) = rf + \beta A(E(rm) – rf)$

Where: rf = the risk free rate
βA =the Beta of asset A
E(rm) = the expected return on the market