PROFESSIONAL LEVEL EXAMINATION

TUESDAY 7 JUNE 2016

(2½ hours)

FINANCIAL MANAGEMENT

This paper consists of **THREE** questions (100 marks).

1. Ensure your candidate details are on the front of your answer booklet. You will be given time to sign, date and print your name on the answer booklet, and to enter your candidate number on this question paper. You may not write anything else until the exam starts.

2. Answer each question in black ballpoint pen only.

3. Answers to each question must begin on a new page and must be clearly numbered Use both sides of the paper in your answer booklet.

4. The examiner will take account of the way in which answers are presented.

5. When the assessment is declared closed, you must stop writing immediately. If you continue to write (even completing your candidate details on a continuation booklet), it will be classed as misconduct.

A Formulae Sheet and Discount Tables are provided with this examination paper.

IMPORTANT

Question papers contain confidential information and must NOT be removed from the examination hall.

DO NOT TURN OVER UNTIL YOU ARE INSTRUCTED TO BEGIN WORK

You MUST enter your candidate number in this box.

1. **You should assume that the current date is 30 June 2016**

Zeus plc (Zeus) is a large clothing retailer. Over the past five years it has built up an internet based division, Venus, which specialises in selling to 16-24 year old female customers. At a recent board meeting the Chief Executive Officer (CEO) of Zeus stated that:

"Venus has been successful, but we have not been able to get the value out of it that we initially expected and the management time involved in running Venus is damaging the financial performance of the group as a whole. Because internet-based companies have very high values compared to non-internet companies with similar earnings, I feel that there could be more value in Venus if it operated outside of our group. I think that we should divest ourselves of Venus and appoint a financial advisor to assist us in the process. I wonder whether an Initial Public Offering (IPO), where the shares are brought to the stock market for the first time, is a possibility."

The board agreed with the CEO and voted in favour of the divestment of Venus. Starr Accountants (SA), a firm of ICAEW Chartered Accountants, has been appointed to give advice to Zeus regarding the value of Venus and the potential IPO. In their valuation SA would like to use net present value analysis and also a multiple of earnings. In addition to general corporate finance work, SA also has a team that specialises in giving investment advice to clients who buy shares in IPOs.

Extracts from Venus's most recent management accounts are shown below:

Balance sheet value of net assets at 30 June 2016: £39 million.

Income Statement for the year ended 30 June 2016

	£m
Sales	140.0
Cost of sales	(56.0)
Gross profit	84.0
Selling and administration costs	(72.0)
Operating profit	12.0
Taxation	(2.5)
Profit after tax	9.5

Note: Selling and administration costs include depreciation of £2 million.

Additional information relating to Venus:

- An analyst has estimated that, for the four years to 30 June 2020, the volume of sales will grow by 18% pa and selling prices will increase by 2% pa. Because of volume discounts, the gross profit percentage will increase to 66%.

- Selling and administration costs, excluding depreciation, are estimated to increase by 5% pa for the four years to 30 June 2020.

- Venus will require an additional investment in working capital on 1 July 2016 of £26 million. This will increase at the start of each subsequent year in line with sales volume growth and selling price increases. Working capital will be fully recoverable on 30 June 2020.

- On 30 June 2016 Venus will need to invest in a new warehouse management system that will cost £10 million and will not have any scrap value on 30 June 2020. The warehouse management system will attract 18% (reducing balance) capital allowances in the year of expenditure and in every subsequent year of ownership by the company, except the final year.

  At 30 June 2020, the difference between the warehouse management system's written down value for tax purposes and its disposal proceeds will be treated by the company either as a:

  (1) balancing allowance, if the disposal proceeds are less than the tax written down value, or
  (2) balancing charge, if the disposal proceeds are more than the tax written down value.

- SA intends to include in the net present value analysis a continuing value at the end of four years that will represent the value of the net cash flows after tax beyond the fourth year. This will be calculated by treating the after-tax operating cash flows for the year ended 30 June 2020 as a growing perpetuity with a growth rate of 1% pa.

- An appropriate money discount rate to reflect the risk of Venus is 10% pa.

- SA would like to assume that the rate of corporation tax will be 21% for the foreseeable future and that tax flows arise in the same year as the cash flows that gave rise to them.

- The average price earnings (P/E) ratio of companies similar to Venus is 55.

- Unless otherwise stated assume that all cash flows arise at the end of the year to which they relate.

Requirements

1.1 Using money cash flows, calculate the value of Venus on 30 June 2016 using net present value analysis. **(15 marks)**

1.2 Calculate the value of Venus on 30 June 2016 using a multiple of current earnings. **(2 marks)**

1.3 Summarise the advantages and disadvantages of the two valuation methods used in parts 1.1 and 1.2 and identify any concerns you have in respect of using them to value Venus. **(5 marks)**

1.4 In relation to the potential IPO, explain the difference between an offer for sale and an offer for subscription (also known as a direct offer). **(2 marks)**

1.5 Outline the advantages and disadvantages of underwriting and advise the board of Zeus as to whether the potential IPO should be underwritten. **(4 marks)**

1.6 Explain two methods, other than an IPO, by which Zeus could divest itself of Venus. **(4 marks)**

1.7 Identify any ethical issues that SA may have in relation to the potential Venus IPO and state how they might be resolved. **(3 marks)**

Total: 35 marks

2. Ross Travel plc (Ross) provides public transport services in the UK. Ross is planning to set up a new division called “Happytours” and to expand into a different sector of the transportation industry by operating holiday and sightseeing tours. The Chief Executive Officer (CEO) of Ross believes that the expansion will cost £500 million and that the finance can be raised in such a way as to leave the existing debt:equity ratio, by market values, of the company unchanged after the expansion.

The CEO of Ross would like the finance director of the company to advise him of how the company’s current weighted average cost of capital (WACC) can be adjusted to take into account the risk of expanding into the new sector. The debt proportion of the new finance will be raised in the form of redeemable debentures. However, the CEO would also like to know the advantages and disadvantages of Ross issuing convertible debentures.

The finance director has established the following:

- The debt proportion of the £500 million finance to be raised on 1 June 2016 will be in the form of new 4% coupon debentures, which will be redeemed on 31 May 2021 at par. The redemption yield of the new debentures will be equal to the redemption yield of Ross’s existing debentures.

- An appropriate equity beta for a company that operates in the holiday and sightseeing tour sector is 1.3 at a debt:equity ratio, by market values, of 1:1.

- The market risk premium is expected to be 5% pa and the risk free rate 2% pa.

- The corporation tax rate will be 21% for the foreseeable future.

The following information relates to Ross without the Happytours project

Extracts from Ross’s most recent management accounts are as follows:

Balance Sheet at 31 May 2016

	£m
Ordinary share capital (5p shares)	32
Retained earnings	3,072
	3,104
6% Redeemable debentures at nominal value	608
	3,712

On 31 May 2016 Ross’s ordinary shares each had a market value of 576p (cum-div) and an equity beta of 0.65. For the year ended 31 May 2016, the dividend declared was 11p per ordinary share and the earnings yield (earnings per share divided by the ex-div share price) was 6%.

Ross’s 6% coupon debentures had a market value on 31 May 2016 of £111 (cum-interest) per £100 nominal value and are redeemable at par on 31 May 2020.

Requirements

2.1 Ignoring the Happytours project, calculate the WACC of Ross at 31 May 2016 using:

- the Gordon growth model **(12 marks)**
- the CAPM **(2 marks)**

2.2 Explain the limitations of the Gordon growth model. **(3 marks)**

2.3 Using the CAPM, calculate a WACC that is suitable for appraising the Happytours project and explain your rationale. **(6 marks)**

2.4 Assuming that £75 million is raised from the new 4% coupon debentures issued on 1 June 2016, calculate the issue price per £100 nominal value and the total nominal value that will have to be issued. Comment on the issue terms for these new debentures. **(7 marks)**

2.5 Explain what is meant by a convertible debenture and outline the advantages and disadvantages for Ross in raising finance using this type of debt. **(5 marks)**

Total 35 marks

3.1 **You should assume that the current date is 31 May 2016**

Heaton Risk Management (HRM) is an authorised financial advisor and provides investment and risk management advice. You work for HRM and currently you are advising two clients, Orchid Cars Ltd (Orchid) and Sheldon Investments (Sheldon).

Orchid is a UK company that manufactures sports cars. Orchid's main market is the UK but it also exports cars to the USA.

Currently Orchid uses forward contracts to hedge its foreign exchange rate risk. However, Orchid's managing director has recently been considering using foreign currency futures and over-the-counter foreign currency options. You have been asked to make a comparison of the results of hedging using the three different techniques.

Orchid is due to receive $2,500,000 on 30 September 2016.

The following data is available to you at the close of business on 31 May 2016:

Exchange rates:

Spot exchange rate ($/£)	1.5398 – 1.5402
Four-month forward premium ($/£)	0.0015 – 0.0010

September currency futures price (standard contract size £62,500): $1.5379/£

Four-month over-the-counter currency options:

Call options to buy £ have an exercise price of $1.5300/£. The premium is £0.03 per $ to be converted and is payable on 31 May 2016.

Put options to sell £ have an exercise price of $1.5200/£. The premium is £0.01 per $ to be converted and is payable on 31 May 2016.

Orchid has surplus cash funds on which it receives interest at 3.60% pa.

Requirements

(a) Assuming that the spot exchange rate on 30 September 2016 will be $/£1.5315 – 1.5325 and that the sterling currency futures price will be $1.5320/£, calculate Orchid's net sterling receipt if it uses the following to hedge its foreign exchange rate risk:

- a forward contract
- currency futures contracts
- an over-the-counter currency option.

(11 marks)

(b) Discuss the relative advantages and disadvantages of each hedging technique and advise Orchid on which would be most beneficial for hedging its foreign exchange rate risk.

(9 marks)

3.2 Sheldon holds a portfolio of FTSE 100 shares and the current market value on 31 May 2016 is £9,657,000. The managers at Sheldon are worried that over the next three months the FTSE 100 will fall in value due to economic uncertainty in Europe and Asia. The managers at Sheldon do not want to sell the company's portfolio and wish to protect its current value against a potential fall in the FTSE 100.

The FTSE 100 index is 6,525 on 31 May 2016 and you have the following information available to you regarding traded index option premiums:

FTSE 100 INDEX OPTIONS: £10 per full index point (points per contract)

	6,450		6,525		6,600	
	Calls	**Puts**	**Calls**	**Puts**	**Calls**	**Puts**
July	155	51	87	85	70	135
August	215	120	171	159	120	213

Option contracts expire at the end of the month.

Requirement

Demonstrate how FTSE 100 index options can be used by Sheldon to hedge its portfolio of shares against a fall in the FTSE 100 and show the outcome if, on 31 August 2016, the portfolio's value:

(a) Rises to £10,471,000 and the FTSE 100 index rises to 7,075;

(b) Falls to £8,695,000 and the FTSE 100 index falls to 5,875. **(7 marks)**

3.3 Sheldon's managers would like an explanation regarding the time value of the FTSE 100 index options.

Requirement

Explain the three factors that will affect the time value of the FTSE 100 index options in 3.2 above. **(3 marks)**

Total 30 marks