PROFESSIONAL LEVEL EXAMINATION

WEDNESDAY 10 SEPTEMBER 2014

(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.
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.

A Formula 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.

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1a. Hawke Appliances Ltd (Hawke) is a UK-based manufacturer of household appliances. It has a financial year end of 31 December. You work for Hawke and have been asked to advise the company's board on the viability of a proposed new product.

The company is considering the development of a new vacuum cleaner, the JH143. This will be more expensive than Hawke's other vacuum cleaners but it contains a number of innovative design features that Hawke's board believes will be attractive in an increasingly competitive market. Because of these market conditions, Hawke's board wishes to evaluate the JH143 over a three-year time horizon.

Selling price, materials and unskilled labour

You have obtained the following information on the budgeted price and costs per unit for the JH 143 (in 31 December 2014 prices):

	£
Selling price	155
Materials	53
Unskilled labour	28

Fixed costs are not expected to increase as a result of producing the JH143.

Skilled labour

Each JH143 will require one hour of skilled labour that is in short supply. Hawke will need to transfer some of its skilled labour away from making another older vacuum cleaner (the JH114), which requires half the skilled labour time per unit of the JH143. The current selling price of the JH114 is £96 and its materials and unskilled labour costs total £74 per unit (in 31 December 2014 prices). Hawke's skilled labour is paid £8.80 per hour (in 31 December 2014 prices).

Inflation

Revenues and costs are expected to inflate at a rate of 4% pa.

Sales volumes

Hawke commissioned market research at a cost of £55,000 for the JH143 project, half of which remains unpaid and is due for settlement on 31 December 2014. An extract from the results of that market research is shown here:

	2015	**2016**	**2017**
Estimated annual sales of the JH143 (units)	50,000	95,000	45,000

Machinery

Specialised new production machinery will be required in order to make the new vacuum cleaner. This machinery will cost £4.5 million to buy on 31 December 2014 and will have an estimated scrap value of £1 million on 31 December 2017 (in 31 December 2017 prices). If production of the existing JH114 is reduced then some of Hawke's older machinery could be sold on 31 December 2014. This machinery had a tax written down value of £80,000 on 1 January 2014 and Hawke estimates that it could be sold for £220,000.

The machinery 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. In the final year, the difference between the machinery's written down value for tax purposes and its disposal proceeds will be treated by the company either:

- as an additional tax relief, if the disposal proceeds are less than the tax written down value, or
- as a balancing charge, if the disposal proceeds are more than the tax written down value.

Corporation tax

Assume that the corporation tax rate will be 21% pa for the foreseeable future.

Working capital

Hawke will invest in working capital at a rate of 10% of the JH143's annual sales revenue, to be in place at the start of each year. It expects to recover the working capital in full on 31 December 2017.

Cost of capital

Hawke uses a money cost of capital of 12% pa for investment appraisal purposes.

Requirements

(i) Using money cash flows, calculate the net present value on 31 December 2014 of the proposed development of the JH143 and advise the company's board whether it should proceed with the investment. **(16 marks)**

(ii) **Ignoring the effects on working capital**, calculate the sensitivity of your advice in part (i) to

- changes in the selling price of the JH 143. **(3 marks)**
- changes in the volume of sales of the JH 143. **(4 marks)**

1b. Hawke's board is also investigating the possibility of buying another company, Durram Electricals Ltd (Durram) which is a successful retailer of electrical goods. The board has obtained the following information about Durram:

Earnings and cash flows for the year ended 31 August 2014	£700,000
Expected growth of earnings and cash flows	5% pa
Book value of equity at 31 August 2014	£3,600,000
Average industry P/E ratio	11
Cost of capital	12% pa

Hawke's board has no experience of buying another company and you have been invited to the next board meeting to answer these questions:

(1) What range of values is reasonable for Durram on 31 August 2014?
(2) Why do many acquisitions not benefit the bidding firm?
(3) Would it be better to pay for Durram in cash or with Hawke's shares?

Requirement

Prepare calculations and notes that will enable you to answer these questions at the next board meeting. **(12 marks)**

Total: 35 marks

2. You are an ICAEW Chartered Accountant and work in the finance team at Tower Brazil plc (Tower). The company manufactures wallpaper and paint for major UK homeware retailers and has been trading since 2001. It has a financial year end of 31 August. Extracts from its most recent management accounts are shown below.

Income Statement for the year ended 31 August 2014

	£'000
Profit before interest	9,356
Debenture interest	(2,338)
Profit before tax	7,018
Tax at 21%	(1,474)
Profit after tax	5,544
Dividends - preference shares	(480)
Dividends - ordinary shares	(4,509)
Retained profits	555

Balance Sheet at 31 August 2014

	£'000
£1 ordinary share capital	16,500
Retained earnings	26,420
	42,920
6% £1 preference shares	8,000
5% debentures at nominal value (redeemable 2016)	46,750
	97,670

The market values of Tower's long-term finance on 31 August 2014 are shown below:

£1 ordinary share capital	£4.20/share
6% £1 preference shares	£0.80/share
5% debentures	£110%

<u>Extracts from the minutes of Tower's board meeting, 1 September 2014</u>

AB (Production Director) once again raised the issue of Tower's "gearing problem" and said that gearing was now over 50%. DB (Marketing Director) and WR (Sales Director) concurred. All three felt that gearing should be reduced as a matter of urgency, otherwise, according to AB, it's very risky and the company's share price (and cost of capital) will be adversely affected which will make new projects difficult to justify.

It was agreed to investigate the implications of using a rights issue to address the gearing problem. The rights issue would enable ordinary shareholders to significantly increase their investment and so reward them for their loyalty. It was proposed that a one for two rights issue would be made, but concerns were raised that this would reduce the company's earnings per share figure by more than 10%.

WR raised the point that dividends have increased 3% pa on average over the past five years. He suggested that rather than raising more capital the company could change its dividend policy. As a result it would retain more of its profits for re-investment. He thought this would not be popular with shareholders, but that, if they *did* react badly to the change then Tower could always pay a one-off special dividend to make up for any shortfall.

As a result of these discussions the board decided to explore the implications of making a 1 for 2 rights issue which would raise sufficient funds to purchase and cancel 60% of Tower's debentures by market value.

In advance of the next board meeting, you have been asked by your manager, Luke Cleeve, to prepare calculations and advice for Tower's directors. Luke pointed out to you that you should "be careful with this information as it's potentially price sensitive and not in the public domain."

Assume that the corporation tax rate will be 21% pa for the foreseeable future.

Requirements

(a) Calculate Tower's theoretical ex-rights share price if a 1 for 2 rights issue were made on 1 September 2014. **(3 marks)**

(b) (i) Calculate Tower's earnings per share figure for the year ended 31 August 2014 and for the year ended 31 August 2015 after the proposed rights issue (assuming no change in profit before interest).

(ii) Calculate and comment on the terms of the rights issue required if the earnings per share figure is not to worsen by more than 10% for the year ended 31 August 2015. **(11 marks)**

(c) Calculate Tower's gearing (debt / debt + equity) at 31 August 2014 using both book and market values and advise its board as to whether it has a "gearing problem" and how its gearing level could affect its share price. Where relevant, make reference to theories regarding the impact of capital structure on share price. **(9 marks)**

(d) Advise Tower's board as to whether the suggested change in dividend policy would have a negative impact on the company's share price. Where relevant, make reference to theories regarding the impact of dividend policy on share price. **(9 marks)**

(e) Explain the ethical implications for an ICAEW Chartered Accountant of having access to "price-sensitive information". **(3 marks)**

Total: 35 marks

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3. **You should assume that the current date is 30 September 2014**

You work in the finance team at JEK Computing Ltd (JEK), which is a UK-based computer services company. Founded in 2008, it has to date operated exclusively in the UK but its board recently decided to expand its operations by looking overseas for new contracts.

JEK is ready to submit a tender bid for a contract with the government of Estonia. The local currency in Estonia is the euro. As this would the first in a series of possible contracts with this government, and to make the tender bid more competitive, the board is using a lower sales margin than is usual on its UK contracts. The following summary information has been prepared:

Estonian contract

Total costs plus margin	£12.420 million
Tender bid on 30 September 2014 at the current spot rate of €1.2165/£	€15.109 million

JEK's board understands that the successful bidder will be announced on 31 October 2014. If JEK wins the bid then work would start on that date and the board estimates that it would be completed on 31 December 2014 when payment would be received from the Estonian government.

The board is concerned that the €/£ exchange rate has changed quite significantly over the past three months and that if this trend continues then it could have an impact on the profitability of the contract. The board would like, therefore, to consider hedging against exchange rate risk immediately on 30 September 2014, even though the outcome of the tender bid is not yet decided.

The spot €/£ exchange rate over the past three months is summarised below:

Exchange rate (€/£)	at 30 June 2014	1.1150 – 1.1463
	at 31 July 2014	1.1373 – 1.1692
	at 31 August 2014	1.1600 – 1.1926
	at 30 September 2014	1.1832 – 1.2165

You have been asked to advise JEK's board and the following information has been made available to you at the close of business on 30 September 2014:

Sterling interest rate (lending)	3.2% pa
Sterling interest rate (borrowing)	4.2% pa
Euro interest rate (lending)	2.6% pa
Euro interest rate (borrowing)	3.4% pa
Three-month over the counter (OTC) put option on euro, exercise price (€/£)	1.2150
Three-month over the counter (OTC) call option on euro, exercise price (€/£)	1.1818
Three-month forward contract premium (€/£)	0.0025-0.0020
Forward contract arrangement fee (per euro converted)	£0.002
Relevant OTC option premium (per euro converted)	£0.012

Requirements

(a) Estimate the spot rate on 31 December 2014 on the assumption that the €/£ exchange rate continues to change at the same rate as for the period 30 June to 30 September 2014. **(2 marks)**

(b) **On the assumption that JEK's tender bid is successful**:

(i) Calculate JEK's sterling receipt on 31 December 2014 using your answer to part (a) above.

(ii) Calculate JEK's sterling receipt on 31 December 2014 if it uses

- a forward contract
- a money market hedge
- an OTC currency option **(9 marks)**

(c) With reference to your calculations in part (b) above, discuss the issues that should be taken account of by JEK's board when considering whether it should hedge the Estonian contract, assuming the tender bid is successful. **(8 marks)**

(d) Explain the implications for JEK of using each of the hedging instruments in part (b)(ii) above if its tender bid is unsuccessful. **(6 marks)**

(e) Explain the principle of interest rate parity (IRP) and, given the information provided above, calculate the forward rate of exchange on 31 December 2014 using IRP, commenting on your result. You should use the average current spot and borrowing/lending rates for the purposes of this calculation. **(5 marks)**

Total: 30 marks