CPA IRELAND | CERTIFIED PUBLIC ACCOUNTANTS

MANAGERIAL FINANCE

PROFESSIONAL 1 EXAMINATION - APRIL 2017

NOTES:

Section A – Answer Question 1 and Question 2 and **either** Part A **or** Part B of Question 3.
Section B – Answer Question 4 and **either** Part A **or** Part B of Question 5.
Should you provide answers to both Parts A and B in Question 3 and/or Question 5, you must draw a clearly distinguishable line through the answer Part(s) not to be marked. Otherwise, only the first answer(s) to hand for each of these questions will be marked.

MANAGERIAL FINANCE TABLES ARE PROVIDED

TIME ALLOWED:

3 hours, plus 10 minutes to read the paper.

INSTRUCTIONS:

During the reading time you may write notes on the examination paper, but you may not commence writing in your answer book. **Please read each Question carefully.**

Marks for each question are shown. The pass mark required is 50% in total over the whole paper.

Start your answer to each question on a new page.

You are reminded to pay particular attention to your communication skills, and care must be taken regarding the format and literacy of your solutions. The marking system will take into account the content of your answers and the extent to which answers are supported with relevant legislation, case law or examples, where appropriate.

List on the cover of each answer booklet, in the space provided, the number of each question attempted.

NB: PLEASE ENSURE TO ENCLOSE YOUR ANSWER SHEET TO QUESTION 4 IN THE ENVELOPE PROVIDED.

THE INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS IN IRELAND

MANAGERIAL FINANCE

PROFESSIONAL 1 EXAMINATION – APRIL 2017

Time allowed 3 hours, plus 10 minutes to read the paper.

SECTION A

(Answer Questions 1 and 2 and either Part A or Part B of Question 3)

1. The sales director of ABF Autos Ltd has approached you regarding a proposed Management Buy-Out (MBO). This company has traded successfully for over 20 years, but recently the two founding directors informed the sales director that they will be retiring at the end of the current year.

You have been asked to provide financial advice regarding the proposed MBO. The sales director informed you that he needs to obtain a positive NPV within 3 years and a payback within 2.5 years.

Since commencement, ABF Autos Ltd has operated from a leased premises. This lease agreement will expire at the end of the current financial year. A new three-year lease has been negotiated for €270,000 per annum with a deposit amount equal to one third of the annual lease payable before the proposed new MBO company (SD Limited) would commence trading on 1 January 2018. This deposit would be refunded on the last day of the lease.

Your investigations reveal the following background information about arrangements and transactions that would occur before the new company would commence trading:

- A new computer system (costing €186,000) is required to link with suppliers in order to ensure maximum levels of inventory efficiency. The premises will require a complete refurbishment at an estimated cost of €75,000. It is planned to depreciate the computer system at 35% per annum using the reducing balance method and the cost of the refurbishment will be written off evenly over the three-year period.
- If the sales director decides not to proceed with the MBO, he would receive a redundancy payment of €110,000. This has been offered by one of the retiring directors who would prefer if one of his relatives took over the business. If the MBO goes ahead, the sales director would receive a statutory redundancy payment of €38,000.

You have ascertained the following additional details on costs:

- There will be three sales staff employed, each earning a guaranteed salary of €43,000 plus a commission of 5% for Category 1 car sales, and 10% for Category 2 car sales (see details of car sales on the next page). There will also be one reception/administration staff member who will earn €40,000 per annum but will be given a 15% increase effective at the start of January 2019. These costs are not included in the fixed costs detailed below.
- Promotion and advertising costs will amount to €57,000 per annum. In addition there will be a special promotion offering a hotel voucher to first-time buyers under Category 1 sales in 2018. The cost of each voucher will be €90 and it is estimated that 25% of Category 1 car sales will be first-time buyers in 2018 (see details on the next page regarding forecast car sales). These costs are not included in the fixed costs detailed below.
- Fixed costs have been estimated at €295,000 per annum. This figure includes the depreciation for the computer system and the cost of the refurbishments as described above. It also includes an amount for the goodwill of ABF Autos Ltd (valued at €144,000 in total) payable in three equal annual instalments.

- Other variable costs as a percentage of each type of sale will be:

  - o Purchases 80% (for Category 1 cars);
  - o Purchases 75% (for Category 2 cars); and
  - o 10% of car finance income - agent's commission (for organising car finance).

Forecasted sales for the first three years of trading have been estimated as follows:

- For Category 1 car sales, it has been estimated that 300 units at an average price of €10,000 will be sold In Year 1. The number of units sold is expected to increase by 10% in each subsequent year.
- For Category 2 car sales, it has been forecast that 120 units at an average price of €20,000 will be sold In Year 1. The number of units sold is expected to increase by 30% in the second year of trading and by 25% in the following year.
- The amount of income from car finance will be based on a percentage of sales revenue from customers that use a car finance company recommended by SD Limited. The details of this arrangement regarding the income that will be received from this car finance company are:

	Category 1	**Category 2**
Income based on % of car sales	8%	12%
% of customers that will use car finance	40%	50%

Other information regarding the proposal:

- You may ignore taxation issues.
- The relevant cost of capital is 12%.
- Assume that all cash inflows and outflows will occur in the year each item is incurred unless stated otherwise.

REQUIREMENT:

Please note that calculations should be shown in €'000s rounded to 1 decimal place.

(a) The sales director has asked you to draft an email presenting three tables with the results of your calculations relating only to the proposed MBO as specified below. Please note that all calculations and workings should be shown on separate pages at the end of the email.

(i) Table 1: Expected Net Cash Flows at the end of Years 0 to 3 inclusive. (15 marks)

(ii) Table 2: The Net Present Value (NPV). (3 marks)

(iii) Table 3: The Payback Period. (2 marks)

(b) Discuss the proposal and the qualitative factors that should be considered. (5 marks)

[Total: 25 Marks]

2. The directors of Irish Plc wish to evaluate a proposed acquisition of a company (FN Limited) located in eastern Europe that has net assets currently valued at 4,200 million in the local (Fx) currency. You have been asked to analyse the financial implications of two possible strategies regarding the risk of an adverse movement in exchange rates. The managing director of Irish Plc has stated that *"Hedging and other forms of 'financial engineering' are expensive and often result in losses that outweigh any possible benefits"*. Her preferred strategy is therefore one of 'No Hedging' and to finance the proposed acquisition by a loan in euros. In contrast, the financial director is of the view that Irish Plc should adopt a strategy of 'Hedging' by financing the proposed acquisition of the company in the local Fx currency. After conducting research on the expected profits of both companies and forecasted changes in currency rates, you have summarised the following information regarding the proposal.

- The terms of the loan to finance the acquisition of 100% of the equity in FN Limited (regardless of currency) would stipulate interest only repayments for the first two years.
- The proposed acquisition would take place on 5 July 2017 for an amount equal to the current market value of FN Limited's net assets. The forecasted exchange rate at that date is 4.2 Fx = 1 Euro.
- Two possible scenarios are envisaged for the end of the forthcoming accounting year end at 30 June 2018:

    (i) No change in the exchange rate, and
    (ii) The exchange rate changes so that 4.8 Fx = 1 Euro.

- The cost of arranging the hedging strategy to finance the acquisition with a loan in the Fx currency is estimated to be 1% of the amount of the loan. If a hedging strategy is implemented, this cost will be charged directly against equity in the year of acquisition and will be paid from Irish Plc's bank account included in net current assets as listed in the statement of financial position below.
- It has been forecasted that both companies will report a breakeven net income for the year ending 30 June 2018.

You have been provided with a forecast summary Statement of Financial Position at 30 June 2017 for Irish Plc. In order to assist in your analysis, items that are non-applicable at that date but may require future adjustment, have also been included.

Irish Plc Statement of Financial Position as at 30 June 2017

	€ m
Non-Current Assets	
Domestic	10,590
International	N/A
	10,590
Net Current Assets	5,410
Total Assets	16,000
Non-Current Liabilities	
Existing Loans	4,190
Loan for Acquisition	N/A
	4,190
NET ASSETS	**11,810**
Equity	
Issued Share Capital	4,560
Retained Earnings	7,250
Translation Loss	N/A
Cost of Hedge	N/A
TOTAL EQUITY	**11,810**

REQUIREMENT

(a) Prepare two forecast Statements of Financial Position for Irish Plc as at 30 June 2018 in columnar format (as outlined above) based on a 'No Hedging' strategy assuming that the planned acquisition takes place and

(i) there is no change in the currency exchange rate from the date of acquisition (i.e. 4.2 Fx = 1 Euro); and

(ii) the exchange rate changes so that 4.8 Fx = 1 Euro. (7 marks)

(b) Prepare two forecast Statements of Financial Position for Irish Plc as at 30 June 2018 in columnar format (as outlined above) based on a 'Hedging' strategy assuming that the planned acquisition takes place and

(i) there is no change in the currency exchange rate from the date of acquisition (i.e. 4.2 Fx = 1 Euro); and

(ii) the exchange rate changes so that 4.8 Fx = 1 Euro. (7 marks)

(c) Discuss the relevance of hedging when used as a tool in financial management. (6 marks)

[Total: 20 Marks]

3. **Answer <u>either</u> Part A <u>OR</u> Part B.**

The Organisation for Economic Co-operation and Development (OECD) produced a report in 2015 on the topic of New Approaches to SME and Entrepreneurship Financing. Provided below are modified extracts from this report.

Bank lending is the most common source of external finance for many SMEs and entrepreneurs, which are often heavily reliant on debt to fulfil their start-up, cash flow and investment needs. While it is commonly used by small businesses, however, traditional bank finance poses challenges to SMEs and may be ill-suited at specific stages in the firm life cycle.

Equity finance is key for companies that seek long-term corporate investment, to sustain innovation, value creation and growth. Equity financing is especially relevant for companies that have a high risk-return profile, such as new, innovative and high growth firms. Seed and early stage equity finance can boost firm creation and development, whereas other forms of equity […] can provide financial resources for growth-oriented and innovative SMEs.

A key challenge now [for governments] is to ensure long-term sustainability for SMEs by leveraging private resources and developing appropriate risk-sharing mechanisms with private partners.

Part A
REQUIREMENT:
With reference to the comments made by the OECD above, critically appraise the main forms of finance available for SMEs as provided by the banking sector and the various government agencies in Ireland or another country that you are familiar with.

[Total: 15 Marks]

<u>OR</u>

Part B
REQUIREMENT:
The OECD report refers to the “high risk-return profile [of …] growth-oriented and innovative SMEs”. Briefly outline the main challenges facing an SME engaged in export orientated growth. Critically evaluate strategies that might be deployed to deal with the associated risks.

[Total: 15 Marks]

SECTION B
Answer Question 4 and either Part A OR Part B of Question 5.

4. The following multiple-choice question contains 8 sections, each of which is followed by a choice of answers. Only one of the answers offered is correct. Each question carries 2.5 marks. Provide your answer to each section on the answer sheet provided.

INFORMATION RELEVANT TO PART 1 ONLY

CR Limited is planning its investment strategy for the forthcoming year. It has a total Capital Budget of €5 million. Details of available projects are provided below. Note that the projects cannot be divided into separate parts.

PROJECT	INVESTMENT	NPV
	€000	€000
P	3,000	1,250
Q	2,500	1,200
R	2,000	700
S	1,125	350
T	500	140

1. Based on the information provided above, which combination of projects should the company choose in order to maximise NPV?

(a) Projects P and Q
(b) Projects P and R
(c) Projects P, S and T
(d) None of the above.

INFORMATION RELEVANT TO PART 2 ONLY

You have been provided with the following extracts from the financial statements of W Limited

Sales	€850 million
Inventory	€43 million
Payables	€53 million
Receivables	€58 million
Gross Profit Margin	40%

2. Based on the information provided above, what is the approximate operating cycle (also known as the 'cash conversion cycle') in days?

(a) 17.7 days
(b) 27.8 days
(c) 32.0 days
(d) None of the above.

3. In relation to working capital management (WCM), which of the following statements are correct?
   (i) A conservative WCM policy involves increasing the amount of current assets.
   (ii) Increasing the amount of current assets will increase profits.
   (iii) Increasing the amount of current assets will improve liquidity.

(a) Statements (i) and (ii) only.
(b) Statements (i) and (iii) only.
(c) Statements (ii) and (iii) only.
(d) None of the combinations listed above.

INFORMATION RELEVANT TO PARTS 4 AND 5 ONLY

You have been provided with the following information extracted from the Statement of Financial Position for ED Plc as at 31 January 2017.

	€m
Ordinary shares (€2 each)	700
8% Irredeemable Debentures	100

Other relevant information:

- Currently, the irredeemable debentures are trading at a premium of 25%.
- The market value of the Ordinary shares cum dividend is €9.25 per share. Recently the company has announced its intention to pay an ordinary dividend of €0.50 per share which will be paid within the next three days. The company has a history of consistent growth in its dividends. It has been predicted by a firm of independent analysts that ED Plc will pay an ordinary dividend of €0.525 next year and that rate of dividend growth will be maintained for the foreseeable future.
- The Corporation Tax rate is 12.5%

REQUIREMENT:

4. The company's current cost of irredeemable debentures is approximately:

(a) 8.8%
(b) 7.0%
(c) 5.6%
(d) None of the above.

5. The company's current cost of ordinary shares is approximately:

(a) 5.4%
(b) 6.6%
(c) 11.0%
(d) None of the above.

6. On 12 March, L Plc sent a confidential letter to S Plc. This letter was a formal enquiry about a possible takeover of S Plc at a price 10% above the quoted price on that date. The contents of the letter became public information as it was communicated to the shareholders of S Plc at the company's AGM on 26 March.

Assuming semi-strong and strong forms of market efficiency, which of the following combinations of possible share price movements for S Plc would you expect on 26 March?

	Semi-Strong	**Strong**
(a)	No effect	No effect
(b)	No effect	Increase
(c)	Increase	Increase
(d)	Increase	No effect

7. With regard to dividend policy, which of the following statements are correct?

(i) The importance of the dividend as a signal to investors occurs because of a significant market imperfection: information asymmetry.
(ii) According to the original theory of Modigliani and Miller, the dividend decision is irrelevant because dividends represent cash leaving the firm to shareholders, who are the ultimate owners of the firm.
(iii) Regardless of changes in reported profits, it is the increase or decrease over the expected level of dividends that leads to a rise or fall in share price.

(a) Statements (i) and (ii) only.
(b) Statements (i) and (iii) only.
(c) Statements (ii) and (iii) only.
(d) None of the combinations listed above.

8. With regard to company valuation, which of the following statements are correct?

   (i) When the P/E ratio for a company is higher than its competitors, one possible reason is that investors expect this company to show faster growth in its future earnings.
   (ii) Using discounted cash flows for company valuation assumes that all annual cash flows are paid out to shareholders rather than reinvested.
   (iii) In order to calculate the appropriate cash flows based on published profit figures, both depreciation and increases in trade receivables are added back to Earnings Before Interest and Taxes.

(a) Statements (i) and (ii) only.
(b) Statements (i) and (iii) only.
(c) Statements (ii) and (iii) only.
(d) None of the combinations listed above.

[Total: 20 Marks]

5.

Answer either Part (A) OR Part (B)

Part (A)
You have been asked to investigate the performance of EM Limited. This company is a manufacturer of high quality exercise mats that are exported worldwide. Recently, there have been significant variances from figures that were agreed by all relevant parties in budget meetings that are held each year.

As part of your investigations you have compiled information that the directors inform you are based on 'ideal conditions'. This information is summarised in a standard cost card for the company's main product.

Standard Costs per unit

Cost Item	Quantities	€
Materials	4 metres x €0.35 per metre	1.40
Direct Labour	20 minutes x €18 per hour	6.00
Variable Overheads	20 minutes x €6 per hour	2.00

The company operates a 'no inventory policy' and it has been reported that 420 units of the product were sold for €7,560 in the most recent budget period.

According to the agreed financial plan for March 2017, the budgeted volume of sales was 450 units, and the budgeted selling price was €20 per product unit.

A review of the actual results for March 2017 reveals the following:

Actual Costs

Cost Item	Quantities	€
Materials Consumed	1,890 metres	567
Direct Labour	168 hours	2,940
Variable Overheads	168 hours	1,050

REQUIREMENT:
Draft an email to the Operations Manager of EM Limited presenting the following information:

(a) An Operating Statement for March 2017 that reconciles the actual contribution and the budgeted contribution with the amounts and nature of the variances clearly identified. Workings should be shown on a separate page.

(13 marks)

(b) Comment critically on the results of your analysis for three of the variances indentified and indicate recommended remedial action.

(7 marks)

[Total: 20 Marks]

OR

Part (B)

REQUIREMENT:
Appraise how the concept of agency theory applies to Corporate Governance and assess the relevance of agency costs to an organisation's dividend and financing decisions.

[Total: 20 Marks]

END OF PAPER

SUGGESTED SOLUTIONS

THE INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS IN IRELAND

MANAGERIAL FINANCE

PROFESSIONAL 1 EXAMINATION – APRIL 2017

SOLUTION 1

EMAIL
TO: Sales Director SD Limited
FROM: CPA Financial Consultant

RE: Proposed MBO

As requested this email contains a table that summarises the results of the financial assessment of the proposed MBO of the motor business of CS Limited. These results are based on the suggested methods of Payback and Net Present Value. A brief critical evaluation of the proposal is also provided. Detailed calculations and workings are provided in a separate section at the end of this email. Please let me know if you require any further information.

Kind regards,
CPA Fin Consult.

(a) GC Limited – Proposed MBO Format (1 Mark)

Table 1

Years	**0**	**1**	**2**	**3**
	€000	**€000**	**€000**	**€000**
Expected Net Cash Flow	-423.0	318.4	496.8	790.1

(14 Marks)

Examiner's Note
Please note that the question specifically requested a table format.

Method	**Result**	**Initial Recommendation**	
NPV (in €000s)	819.7	Accept	(3 Marks)
(i) Payback	1.21 years	Reject	(2 Marks)

(20 Marks)

(Proportionate marks awarded for workings - see pages 11 to 13)

(b) Brief Critical Evaluation of the Proposed MBO **(1 Mark per valid point)**

Based on the estimates provided, you should proceed with the proposed MBO. The payback period of 1.21 years is within your stipulated timeframe of 2 years. More significantly, the project will return over €800,000 in Net Present Value (NPV) in the 3 year time period. However, this positive outcome is not guaranteed and a range of issues should be considered including the following:

- The reliability of the estimation of future cash flows
- The impact of cash flows outside the specified time period of three years
- Sensitivity of viability of the proposed expansion project to changes in demand, levels of costs etc.

Other specific factors that could impact on this project's feasibility include:
- How reliable are the estimates of the forecasted sales? Can the existing premises and staff cope with the anticipated growth?
- Can the anticipated margins be sustained? Will competitive forces have an impact on selling prices?
- What proportion of the cars are sourced in the UK – fluctuating currency rates will require planning and risk management. Etc.

W1 NPV & Cash Flows	**Wkg.**					
Years		**0**	**1**	**2**	**3**	
Inflows			**€000**	**€000**	**€000**	
Revenues						
Category 1	W3		3,000.0	3,300.0	3,630.0	(1 Mark)
Category 2	W3		2,400.0	3,120.0	3,900.0	(1 Mark)
CF Income	W4		240.0	292.8	350.2	(1 Mark)
Total Inflows			**5,640.0**	**6,712.8**	**7,880.2**	
Outflows						
Computer Equipment		186.0				
Building Refurbishment		75.0				
Lease Deposit		90.0			-90.0	
Annual Rent			270.0	270.0	270.0	
Opportunity Cost:						
Redundancy: If no MBO		72.0				
Prom & Advert Costs			57.0	57.0	57.0	
Voucher Promotion			6.8			
Variable Costs						
Category 1			2,400.0	2,640.0	2,904.0	
Category 2			1,800.0	2,340.0	2,925.0	
CF Income			24.0	29.3	35.0	
Staff Costs			559.0	652.0	746.5	
Relevant Fixed Costs	W5		204.9	227.7	242.5	
Total Outflows		**423.0**	**5,321.7**	**6,216.0**	**7,090.0**	
						(11 Marks)

(ii)

Expected NPV				
Expected Net Cash Flow	**-423.0**	**318.4**	**496.8**	**790.1**
Discount Factor @ 12%	1.000	0.8929	0.7972	0.7118
PV @ 12%	**-423.0**	**284.2**	**396.1**	**562.4**

ENPV @ 7% 819.7

W2 Payback Period

Years	**Cash Flows** €	**Cumulative** €
0	-423	-423
1	318	-105
2	497	392
3	790	1,182

1 + (105 / 497)
1 + 0.21
1.21 years
1 years 2.5 months

WORKINGS	**Years**	**1**	**2**	**3**
W3 Total Revenues		**€000**	**€000**	**€000**
Car Sales Catg. 1		3,000.0	3,300.0	3,630.0
Car Sales Catg. 2		2,400.0	3,120.0	3,900.0
Car Finance Income		240.0	292.8	350.2

W4 Revenues Car Sales Categ 1	**Years Annual Increase**	**1**	**2**	**3**
Units	10%	300.0	330.0	363.0
S. Price per Unit (in €000s)		10.0	10.0	10.0
Total Sales (in €000s)		**3,000.0**	**3,300.0**	**3,630.0**

W5 Revenues Car Sales Categ 2	**Years Increase**	**1**	**2**	**3**
Units; Year 1		120.0		
Units; Year 2	30%		156.0	
Units; Year 3	25%			195.0
S. Price per Unit (in €000s)		20.0	20.0	20.0
Total Sales (in €000s)		**2,400.0**	**3,120.0**	**3,900.0**

W6 Revenues Car Finance Income	**Years**	**1**	**2**	**3**
Category 1 Sales (from W4)		3,000.0	3,300.0	3,630.0
Income based on % of Car Sales	x	8%	8%	8%
% of Customers that will use Car Finance	x	40%	40%	40%
Car Finance Income: Category 1		**96.0**	**105.6**	**116.2**
Category 2 Sales (from W5)		2,400.0	3,120.0	3,900.0
Income based on % of Car Sales	x	12%	12%	12%
% of Customers that will use Car Finance	x	50%	50%	50%
Car Finance Income: Category 2		**144.0**	**187.2**	**234.0**
Total Car Finance Income (in €000s)		**240.0**	**292.8**	**350.2**

W7 Staff Costs	**Years Commission Rate**	**1**	**2**	**3**
		€000	**€000**	**€000**
Category 1 Sales (from W4)		3,000.0	3,300.0	3,630.0
Category 2 Sales (from W5)		2,400.0	3,120.0	3,900.0
Commission (Categ. 1 Sales)	5%	150.0	165.0	181.5
Commission (Categ. 2 Sales)	10%	240.0	312.0	390.0
Basic Salary (3 x €43,000)		129.0	129.0	129.0
Total Staff Costs: Sales		**519.0**	**606.0**	**700.5**
Reception/Admin		**40.0**		
Increase in Year 2	15%		**46.0**	**46.0**
Total Staff Costs		**559.0**	**652.0**	**746.5**

W8 Cost of Voucher Promotion	**Year**	**1**
No Units Category 1		300.0
% Eligible for Promotion	x	25%
No. Eligible for Promotion		75.0
Cost per Voucher (in euros)	x	90.0
Cost of Voucher Promotion (in €000s)		**6.8**

W9

Variable Costs	**Years**	**1**	**2**	**3**
	%			
Purchases - Catg 1	80%	2,400.0	2,640.0	2,904.0
Purchases - Catg 2	75%	1,800.0	2,340.0	2,925.0
Total Purchases		4,200.0	4,980.0	5,829.0
Agent's commission - as % of Total CFI	10%	24.0	29.3	35.0
Total Variable Costs		**4,224.0**	**5,009.3**	**5,864.0**

W10 Depreciation & Establishment Costs

Depreciation	**Years**	**1**	**2**	**3**
Computer Equipment		**€000**	**€000**	**€000**
Cost		186.0		
Open NBV			120.9	78.6
Deprec. (Computer)		**65.1**	**42.3**	**27.5**
Closing NBV		120.9	78.6	51.1
Building				
Cost		75.0		
Deprec. (Refurbishments)		**25.0**	**25.0**	**25.0**
Total Deprec.		90.1	67.3	52.5

W11	**Years**	**1**	**2**	**3**
Fixed Costs		**€000**	**€000**	**€000**
Total Fixed Costs		295.0	295.0	295.0
Less:				
Total Deprec.		90.1	67.3	52.5
Relevant Establishment Costs		**204.9**	**227.7**	**242.5**

SOLUTION 2

(a)

		'No Hedge'	
		(i)	**(iii)**
Irish plc		No Change	Change
Forecast	**Balance Sheet**	No Hedge	No Hedge
y/e as at	**30 June 2018**		
		€m	**€m**
Non-Current Assets			
Domestic		10,590	10,590
International		1,000	875
		11,590	11,465
Net Current Assets		5,410	5,410
Total Assets		17,000	16,875
Non-Current Liabilities			
Existing Loans		4,190	4,190
Loan for Investment		1,000	1,000
Total Liabilities		5,190	5,190
NET ASSETS		**11,810**	**11,685**
Equity			
Issued Share Capital		4,560	4,560
Translation Loss		0	-125
Cost of Hedge		0	0
Retained Earnings		7,250	7,250
TOTAL EQUITY		**11,810**	**11,685**

(b)

		'Hedge Strategy'	
		(ii)	**(iv)**
Irish plc		No Change	Change
Forecast	**Balance Sheet**	With Hedge	With Hedge
y/e as at	**30 June 2018**		
		€m	**€m**
Non-Current Assets			
Domestic		10,590	10,590
International		1,000	875
		11,590	11,465
Net Current Assets [5,410-10]		5,400	5,400
Total Assets		16,990	16,865
Non-Current Liabilities			
Existing Loans		4,190	4,190
Loan for Investment		1,000	875
Total Liabilities		5,190	5,065
NET ASSETS		**11,800**	**11,800**
Equity			
Issued Share Capital		4,560	4,560
Translation Loss		0	0
Cost of Hedge		-10	-10
Retained Earnings		7,250	7,250
TOTAL EQUITY		**11,800**	**11,800**

SOLUTION 3

Part A

Critical appraisal of the main sources of finance for SMEs provided by the banking sector and the various government agencies in Ireland.

	Marks
1 Mark for each properly stated valid point (max 9) (9 x 1)	9
6 Marks for expression and coherence of appraisal	6
	[Total: 15 marks]

The banking sector in Ireland provides a wide range of finance products to the SME sector.
These include:

- Loans for different time periods – short, medium and long term
- Current accounts with overdraft facilities
- Leasing and Hire Purchase Finance
- Invoice Discounting – Factoring with and without recourse
- Other finance products such as Purchase Order Finance, Special Purpose Loans (for energy efficiency etc.).

The main criticisms that can be made regarding these sources of bank finance for SMEs are:

- Availability of bank finance for Irish SMEs. There are conflicting views on this issue.
    - o The banking organisations claim that the amount of finance provided to the SME sector has increased in the past few years and also state that there is a scarcity of SME projects that are suitable for bank finance. Since the financial crisis of 2008, all financial institutions are closely regulated and must exercise extremely high levels of due diligence in their lending decisions. In accordance with the principles of Managerial Finance, their main objective is to protect the interests of shareholders and depositors.
    - o In contrast, there have been criticisms of the Irish banking sector regarding the availability of finance for Irish SMEs. For instance, in a recent article in Accountancy Plus in 2016, it was reported that there was some improvement in the willingness of Irish banks to provide loan finance for SME firms. However, the majority of SMEs continue to experience difficulties in obtaining adequate amounts of bank finance.
- The cost of bank finance.
    - o The cost of capital for Irish SMEs is very high for those firms that can obtain bank finance. Sources of finance from banks that have a high cost include short-term unsecured loans, lease finance and bank overdrafts.
    - o To justify the high cost of finance provided by banking organisations, they point out that the amount of compliance and credit management is practically the same for SME finance as is the case for larger clients thus increasing the unit cost of providing finance for SMEs. The reported high failure rate of SMEs is also a factor in the large risk premium attached to finance provided to smaller firms.

Note for candidates
Please note that the question specifically asked for critical appraisal. Some marks can be awarded for listing the sources of finance but in order to gain significant marks, candidates need to engage in critical analysis of the issues.

A large number of students displayed a very poor knowledge of basic grammar and spelling. For instance, the question asked candidates to: critically appraise the main sources of finance for SMEs. In spite of the fact that the correct spelling was provided, many candidates misspelled the plural of SME. Words like this are acronyms and are treated similar to nouns. This means that in their plural form, no apostrophe is required.

Part B

Brief outline the main challenges facing an SME engaged in export orientated growth and critical evaluation of the strategies that can be employed to deal with the associated risks.

	Marks
1 Mark for each properly stated valid point (max 9) (9 x 1)	9
6 Marks for expression and coherence of appraisal	6
	[Total: 15 marks]

Many strategies employed by SMEs can be criticised because they neglect to take into account the full impact of export based growth. Assuming that the SME is exporting a country outside of the Euro zone and customers are allowed credit, there are a number of strategies that can be employed. These refer to foreign currency exchange (Fx) rate volatility and transaction risk. The main challenges and a critical evaluation of possible strategies are provided below.

- Invoice the customer in Euros. This eliminates the risk for the exporting SME, but transfers the risk to the customer. If there is an unfavourable movement in the Fx rate for the customer, this will increase the cost which will make the exporting firm's products or services less competitive. In addition to this, the overseas customers may not be willing to accept the ongoing uncertainty associated with this strategy.
- Do nothing. This may be an appropriate strategy if the Fx transaction is relatively small in relation to the exporting company's annual turnover. Such a strategy has the advantage of avoiding the costs of hedging etc. but adverse movements in Fx rates may outweigh these savings and the variability in cash flows and income streams may be excessive and cause long-term (if not critical) damage for the exporting SME.
- Matching. This strategy involves the matching the inflows and outflows in different currencies arising from the original and related subsequent transactions. This means that only the unmatched portion of the transactions must be managed for Fx risk. This can reduce the amount risk and the associated costs but requires the agreement of the relevant parties and there may be significant co-ordination and set-up costs involved.
- Hedging. This can be done in various ways including contracts in money markets, forwards and futures. With all forms of a hedging strategy, the main benefit is that the risk is eliminated or minimised but the main drawback for an SME is the cost and loss of the opportunity for a possible gain from a favourable movement in exchange rates.
- Options. The use of call/put options gives the SME flexibility in that the firm has right (but not the obligation) to buy/sell the currency at a predetermined rate on a specified date. However, options can be quite expensive and the time invested in deciding on the type and terms of the option and the position taken can be significant and could possibly detract from other important issues.

SOLUTION 4

1 **D**

2 **A**

3 **B**

4 **C**

5 **C**

6 **D**

7 **B**

8 **D**

Supplementary workings for

1) Projects Q, R, and T would yield a combined NPV of €2.04 million (€1.2m + €0.7m + €0.14m).

2)

		€m
Sales	100%	850
COS	60%	510
GP	**40%**	340

	€m	**DAYS**
Inventory	43.0	30.8
Receivables	58.0	24.9
Payables	53.0	-37.9
Operating Cycle		**17.7**

3) Statement (ii) is incorrect because increased amounts inventory and receivables will give rise to increased costs (e.g. storage and insurance for inventory; administration and greater likelihood of bad debts for receivables).

4)

$$\mathbf{Kd} = \frac{\text{Interest}\ (1 - t)}{(\text{BV D ex div} \times \text{Val. Factor})}$$

$$= \frac{8\ (1 - 0.125)}{(100 \times 1.25)}$$

$$= 0.0560 \text{ or } \boxed{\mathbf{5.6\%}}$$

5)

$$\mathbf{Ke} = \frac{Do \ (\ 1 + g \ )}{(\ MV\ E\ cum\ div - Do \ )} + g$$

$$= \frac{0.50 \ (\ 1 + 0.05 \ )}{(\ 9.25 - 0.50 \ )} + 0.05$$

$$= 0.0600 + 0.05$$

$$= 0.1100 \text{ or } \boxed{\mathbf{11.00\%}}$$

$$\mathbf{g} = \frac{D1 - Do}{Do}$$

$$= \frac{0.525 - 0.50}{0.50}$$

$$= 0.05$$

6) If the Stock Market operates at a semi-strong level of efficiency, the news of the takeover at the increased price would not have become public knowledge on March 12th and therefore there would be an increase in price on March 26th when news of the takeover became current and public information

If the Stock Market operates at a strong level of efficiency, the news of the takeover at the increased price would have become public knowledge at or near to March 12th and therefore there would be no change in price on March 26th.

7) Statement (ii) is incorrect.

8) All three statements are correct.

SOLUTION 5

Part (A)
(a)
EMAIL
TO: Operations Manager of EM Limited
FROM: CPA Financial Consultant

RE: Variance Analysis for March 2017

Based on your request for a reconciliation between the actual budgeted contribution, an Operating Statement for March 2017 is provided below. As requested, I have also critically commented on three of the variances that (along with all variances) require further investigation. Detailed workings are included on a separate page.

<u>EM Limited</u>

Reconciliation: From Budgeted Contribution to Actual Contribution.

	Favourable		**Adverse**		**Total**	
	€		**€**		**€**	
Total Budgeted Contribution					**4,770**	
<u>Variances</u>						
Sales Price			-840			
Sales Volume			-318			
Material price	95					
Material usage			-74			
Labour rate	84					
Labour efficiency			-504			
Variable O/h Expenditure Variance			-42			
Variable O/h Efficiency Variance			-168			
	179	F	-1,946	A	**-1,767**	A
Actual Contribution					**3,003**	

SOLUTION 5
Workings

(i) Sales Price Variance

(Act S. Price	-	Std S. Price)		Actual Sales Volume			
(€18.00	-	€20.00)	x	420	=	-€840	A

€7,560
420
€18.00 per unit

(ii) Sales Volume PROFIT Variance

(Act Sales Qty	-	Budg Sales Qty)		x		Std PROFIT				
(420	-	450	)	x	(€20.00	-	€9.40)	=	-€318	A

(iii) Materials Price Variance

(Std P per mtr	-	Actual P per mtr)		Actual Qty mtr purchased			
(€0.35	-	€0.30)	x	1,890	=	€95	F

€567
1,890
= €0.30

(iv) Materials Usage Variance

[(Std Qty	x	Act units)	x Act Qty]	x	Std P per kgs			
[(4	x	420	1,890	] x	€0.35	=	-€74	A

as per Ques

(v) Labour Rate Variance

(Std Rate per hr	-	Act Rate per hr)	x	Actual Hours			
(€18.00	-	€17.50)	x	168	=	€84	F

€2,940
168
= €17.50

(vi) Labour Efficiency Variance

[(Std Hours	x	Actual units produced)	- Actual Hrs]		x	Std Rate per hr			
(20/60	x	420)	-	168]	x	€18.00	=	-€504	A

(vii) Variable O/h Expenditure Variance

(Std Rate per hr	-	Act Rate per hr)			Actual Hours			
(€6.00	-	€6.25	)	x	168	=	-€42	A

(viii) Variable O/h Efficiency Variance

[(Std Hours	x	Actual units produced)	-	Actual Hrs]	x	Std Rate per hr			
($\frac{20}{60}$	x	420)	-	168]	x	€6.00	=	-€168	A

(13 marks)

(b)

Explanation of results (1 mark for each factor properly stated) 3

1) The interdependence of the various functions
2) Issues regarding the standard setting process
3) The impact on quality and customer relations etc.

Overall presentation and coherence of rationale for recommendation 4

(7 marks)

[Total: 20 Marks]

Part (B)

Explanation of how the concept of agency theory applies to 'Corporate Governance' and discussion of the relevance of agency costs to an organisation's dividend and financing decisions.

	Marks
1 Mark for each properly stated valid point (max 12) (12 x 1)	12
8 Marks for expression and coherence of appraisal	8

[Total: 20 marks]

According to the OECD, the purpose of Corporate Governance is to develop "an environment of trust, transparency and accountability". This will not only promote business integrity, but will also foster financial stability and sustainable long-term investment. This stability and transparency can benefit society by assisting the providers of capital in the allocation of funds to organisations to invest in profitable projects and to create jobs. A crucial part of the accountability necessary for effective corporate governance is for managers (as agents of equity providers and creditors) to make the appropriate investment, dividend and financing decisions in order to maximise shareholder wealth.

Agency is a legal relationship where one party, the principal, grants authority for another party, the agent, to act on behalf of and under the direction and control of the principal. The agency relationship is fiduciary which means that the agent has a legal duty of care, full disclosure, and diligence, in respect of the assets and information entrusted by the principal. Furthermore, the agent must fully account for all assets and must not take advantage of the position of trust for personal gain at the expense of the principal.

However, throughout history there have been examples of how this ideal scenario does not always work in practice. Well known cases include: the South Sea Bubble; WorldCom; Enron and Goldman Sachs, Disney and Tyco. For instance, it was found that the personal goals (or greed) of individual directors of Disney (Ovitz and Eisner) and Tyco (Kozlowski) resulted in excessive salaries/remuneration received by these agents. In these cases the goals of the principals (shareholder wealth maximisation) were not consistent with the actions of the agents. Cases such as Anglo Irish Bank illustrate that this issue is also relevant in Ireland.

Agency theory attempts to explain the relationship between principals (equity shareholders and/or other providers of finance) and agents (directors and managers) in business. It focuses on addressing the issues that can arise in agency relationships due to unaligned goals or different attitudes to levels to risk. Agency costs are a sum of the amounts expended on monitoring and providing incentives to managers to ensure goal congruence in addition to the amounts lost to principals as a result of agent inefficiencies (or in extreme cases – fraud).

As such we can see that agency theory has implications for the dividend and financing decision. Equity shareholders (the principal) will seek maximum return for their investment – in terms of higher dividends and increased share prices, but managers (acting out of self-interest) will attempt to maximise their own remuneration. Excessive levels of compensation for managers will reduce profits, dividends and share prices. Likewise, if the principal is the provider of loan capital, then these creditors will be primarily concerned with timely repayment of the finance provided and agents that extract unfair amounts for themselves will decrease earnings and cash available to repay debt and interest. Furthermore, managers will be more likely to access sources of finance that have the least amount of restrictive covenants in order to allow more flexibility and less monitoring of their actions. This could lead to a situation where managers as agents abuse their position of trust and reduce the wealth of shareholders and other providers of finance.

With further reference to the dividend decision, Modigliani and Miller proposed (based on a number of assumptions such as perfect markets and flow of information) that the amount of dividend paid was irrelevant to shareholder wealth. However, this ignored the 'agency problem' whereby agents would prefer to pay less dividends in order to have control of residue profits and invest in their own preferred projects even if these did not necessarily benefit the principals by increasing shareholder wealth.

A recent CPA (Ireland) report noted that Corporate Governance provides a framework and parameters for the activities of management. It is not possible for the principals (shareholders and other providers of finance) to monitor all of the day to day activities of their agents – the organisation's management. Agency theory creates awareness of the issues that can arise in the relationship between principals and agents in organisations (including the dividend and financing decision). This can help to ensure that appropriate corporate governance mechanisms are in place and not circumvented, thus benefiting the principals of organisations and other stakeholders.