ACT Practice Paper

Certificate in Treasury Unit 5

Practice Paper

Practice paper for the Certificate in Treasury Unit 5

Based on the syllabus assessed from 05 September 2022.

Introduction

This practice paper has been produced by the Awarding Body at the Association of Corporate Treasurers (ACT) to assist students in their preparation for the CertT assessments. It contains a practice exam for the specified unit as well as practice answers.

Ideally, students should have completed the majority of their CertT studies for Unit 5 before attempting this practice paper. Students should allow themselves 120 minutes to complete the exam. They should then review their performance to identify areas of weakness on which to concentrate the remainder of their study time.

Although the practice exam in this guide is typical of a CertT assessment, it should be noted that it is not possible to test every single aspect of the syllabus in any one particular exam. To prepare properly for the examination, candidates should make full use of the tuition options where available and read as widely as possible to ensure that the whole syllabus has been covered.

Assessment technique: CertT

The best approach to multiple choice assessments is to work methodically through the questions. Candidates should not spend too much time on any one question. If they cannot make up their mind, they should leave the question, flagging it to come back to later.

When all of the questions have been answered, it is prudent to use any remaining time to go through each question again, carefully, to double-check that nothing has been missed. Altering just one incorrect response to a correct response could make the difference between passing and failing.

Assessment information

The CertT assessment consist of 64 questions, split into sections A, B and C; each assessment is worth a total of 100 marks.

CertT assessment test specification:

Section	Number of questions	Marks available	Question format
Section A	20 Multiple Choice questions (MCQs) and 10 Multiple Response questions (MRQs).	30	This section will test a cross-section of knowledge to achieve breadth of syllabus coverage.
Section B	30 MCQs based on mini scenarios (1 scenario with 5 accompanying MCQs).	30	This section will test a cross-section of knowledge to achieve breadth of syllabus coverage.
Section C	4 longer form questions.	40	This section will be based on mini-scenarios common to practice. Questions will test knowledge, analysis, application and justification as appropriate.
Total	64	100	

Under exam conditions, **2 hours** (120 minutes) is allowed for the CertT assessments.

When you take your actual exam, you will be sitting online using your own PC/Laptop. You have access to an online scientific calculator, but for the purpose of this test, you may use a non-programmable scientific calculator. There is a formulae sheet located on page 26 that will also be accessible during your online assessment.

In order for you to determine how well you have performed, exemplar answers are listed at the end of this paper. There are also references to the relevant Learning Outcomes if you need to revisit the associated material.

Section A – 30 marks
This section consists of 20 Multiple Choice questions and 10 Multiple Response questions

A01 Which of the following is an unrewarded risk?

- **A** An investment in some new machinery that develops a fault.
- **B** An investment in systems to comply with regulatory reporting.
- **C** The launch of a new product that due to poor profitability is quickly discontinued.
- **D** The recruitment of a new finance director who decides not to accept the offered role.

A02 Which of the following most accurately describes risk and uncertainty?

- **A** Risk is associated with an outcome that could be positive or negative whereas uncertainty is where the future event is unknown.
- **B** Risk is the chance of a financial loss and uncertainty is a future event that may occur.
- **C** Risk is the probability of a loss and uncertainty is an unknown event.
- **D** The higher the risk the higher the return and the higher the uncertainty the higher the return.

A03 Which of the following is a downside of using variance-covariance methodology for Value at Risk (VaR)?

- **A** It does not support optionality.
- **B** It is too complex for management to understand.
- **C** It is not a useful methodology.
- **D** It is not a good measure of risk for portfolios with low volatility.

A04 A key objective for adopting a hedging strategy is to:

- **A** provide an offset to risks at no additional cost.
- **B** provide potential upside to financial exposure risk.
- **C** share risks with relationship bank partners.
- **D** smooth cash flows and reduce risk, without reducing expected future cashflows.

A05 If a company takes out an interest rate swap to convert its long-term foreign currency floating debt to fixed debt, which of the following risks would increase for the company?

- **A** Commercial risk.
- **B** Counterparty risk.
- **C** Foreign exchange transaction risk.
- **D** Interest rate risk.

A06 A travel company provides a brochure with a price list for the next season. Which type of risk is the company exposed to?

A Operational risk

B Pre-transaction risk.

C Transaction risk.

D Translation risk.

A07 Which of the following best describes a negative pledge?

A A covenant to prevent subsequent lenders having better terms than the original lender.

B A restriction on lending where acquisitions or disposal are material.

C An agreement to exclude an asset from the basket of securities for a repo.

D An agreement to renegotiate the commitment fees on a bank facility.

A08 Which of the following is the most likely reason why corporates do not often take out financial derivatives for their translation risks?

A Shareholders may have a preference for having this risk in their portfolio.

B There are no financial derivatives that accurately match the revaluations on the exposures.

C They are already naturally hedged.

D They have no cash effect and only an accounting impact.

A09 Which of the following are features of a basis swap?

A Both legs of the swap transaction are fixed but use different benchmarks.

B Both legs of the swap transaction are variable rates but use different benchmarks.

C The payable leg of the swap is fixed and the receivable leg is variable.

D The receivable leg of the swap is fixed and the payable leg is variable.

A10 What is the maximum loss to a writer of a European put where the premium is 20, the strike price is 100 and the underlying price is 90?

A Maximum loss is 120.

B Maximum loss is 70.

C Maximum loss is 80.

D Maximum loss is 90.

A11 A company enters into an FX swap contract to roll its forward hedge involving a forward contract. The near date for the initial exchange is 1 June 2023, and the far date for the reverse exchange is 1 September 2023. The contracted date for the initial exchange is 1.25, and the pre-agreed rate for the reverse exchange is 1.30. The forward points for the FX Swap contracts are:

A 0.10.

B 0.05.

C 0.15.

D 0.20.

A12 A business has a borrowing of USD100m and has bought an interest rate guarantee with a strike of 2%. The premium is 0.3% and its borrowing margin is 0.5%.
What is the effective hedge rate if the market rate at the end of the hedging period is 2.4%?

A 2.6%.

B 2.7%.

C 2.8%.

D 2.9%.

A13 Which TWO of the following are both operational risks?

A System failures and fraudulent activity.

B System failure and adhering to the terms of existing debt.

C Fraudulent activity and changing market value of debt.

D Adhering to the terms of debt and the changing market value of debt.

A14 Which of the following explains how a collar can be constructed?

A A cap and a floor are bought with the same strike rate.

B A cap is bought a low strike rate and a floor is sold with a high strike rate.

C A cap is bought with a high strike rate and a floor is sold a low strike rate.

D A cap is sold with a low strike rate and a floor is bought with a high strike rate.

A15 Which of the following would allow a company to convert some of its floating interest rate exposure to a fixed rate over a five-year period?

A Interest rate swap receive fixed, pay floating interest rate.

B Interest rate swap, receive floating pay fixed interest rate.

C Buy a FRA.

D Buy an interest rate floor.

A16 Why would adopting an internal hedging policy of invoicing in the company's own local currency prove ineffective in most circumstances?
Because:

A accounting systems can have difficulty translating amounts into local currency.

B if its own local currency appreciates, future gains on the currency would be lost.

C it would be difficult to decide the most appropriate price for its goods.

D its overseas customers may not accept invoices in a currency which is not their domestic currency.

A17 A common use of a FX swap is:

A to fix the FX rate for a short pre-determined period.

B an exchange of one currency for another at a pre-defined date in the future.

C to adjust the timing of an existing hedge for a specific period.

D to crystalise a gain on an FX contract.

A18 Which of the following is the primary responsibility of a corporate's risk committee?

- **A** Defining the risk policies and procedures.
- **B** Evaluating the effectiveness of the internal and external audit process.
- **C** Setting the corporate's risk limits and deciding upon which instruments to use for hedging strategy.
- **D** Setting the risk strategy and vision which is supported by policies and principles.

A19 Which of the following are responsibilities of the audit committee:

- **A** internal controls, external auditor independence and effectiveness of the audit function.
- **B** internal controls and the integrity and timeliness of the financial statements.
- **C** independence of external auditors, appointment of internal auditors and timeliness of the financial statements.
- **D** independence of external auditors, effectiveness of internal audit function and timeliness of the financial statements.

A20 Which of the following is the most appropriate method for an organisation to attempt to manage 'black swan' events?

- **A** Identifying and hedging the main exposures as they become known.
- **B** Optimising the hedging programme.
- **C** Setting up robust and broad hedging strategies and policy.
- **D** Taking no action as corporates need to take risk to make money.

A21 Which TWO of the following actions would help to diversify risk?

- **A** Building more robust internal controls for the process.
- **B** Investing in assets that are perfectly correlated with the portfolio.
- **C** Having access to multiple funding sources.
- **D** Investing in different asset classes.
- **E** Taking out an insurance product on the specified risks.

A22 Which of the following factors influence the risk appetite of a business?
Select ALL that apply.

- **A** Accessibility to hedging instruments.
- **B** The capital structure of the business.
- **C** The industry sector.
- **D** The shareholders' propensity for risk.
- **E** The volatility of financial markets.

A23 Which of the following are weaknesses of using quantitative data to measure risk?
Select ALL that apply.

A It can prevent qualitative analysis from being performed.
B Limited or poor quality data limits the value of the assessment.
C Numerical accuracy could result in over confidence in the results.
D Risk cannot be estimated with any degree of certainty as it is subjective.
E There is an assumption that the future will be similar to the past.

A24 Which TWO of the following describe the probability density function that has a longer tail on the right-hand side?

A Positively skewed.
B Leptokurtic.
C Normal.
D Negatively skewed.
E Log normal.

A25 Which TWO of the following are examples of operational risk?

A A competitor reduces the prices of its products.
B A computer system has downtime due to an electrical failure.
C A manufacturing plant is disrupted due to flooding.
D The acquisition of a competitor is poorly planned.
E The return on a defined benefit pension scheme is expected to fall this quarter.

A26 Which TWO of the following are the most likely reasons why corporate treasury functions become involved in risk management at the enterprise level?

A Financial risks are more likely to be much greater than any commercial or operational risks in the business.
B Risks frequently interact, so the overall effect requires a company-wide perspective.
C The treasury function has a better understanding of commercial risks than project owners.
D The treasury function manages both financial and operational risk and hence has expertise in these areas.
E Treasury management systems are able to capture and manage enterprise risks.

A27 Which of the following reasons make the management of commodity risk more challenging than the management of foreign exchange risk?
Select ALL that apply.

A A commodity price may include additional components such as transport costs.
B Commodity derivatives are only available over the counter.
C Commodity markets are often less liquid than the foreign exchange markets.
D Forecast foreign exchange prices are less likely to change.
E Long dated commodity prices are always more expensive than long dated foreign exchange prices.

A28 Why do corporates prefer to use over the counter instruments rather than exchange traded instruments?

Select ALL that apply.

A Counterparty risk is limited by using a relationship bank.

B The pricing is more competitive with over-the-counter instruments.

C They can be tailored more closely to the underlying exposure in terms of dates and amounts.

D They provide income to their relationship banks who in turn may provide ancillary services they need.

E Using them avoids the need to make daily variation margin payments.

A29 Which TWO of the following would result in a higher premium for a call option?

If the:

A option changes from in the money to at the money.

B risk free rate rises.

C strike price is higher than the underlying price.

D time to maturity decreases.

E volatility increases.

A30 Which TWO of the following are the most likely reasons why a corporate would avoid hedging with options?

A Insufficient systems to independently value them.

B Lower counterparty risk than fixing instruments.

C Out of the money options are too expensive.

D There is no upside benefit.

E Up-front premium.

This section consists of MCQs based on mini scenarios
(One scenario with five accompanying MCQs)

Case study 1

Ariba Style (AS) is a European cosmetics business selling beauty products worldwide. The company's manufacturing sites are all in Europe and in Euro-zone countries, but sales are across Europe, U.S. and South America. The head office is in Germany, where central treasury is responsible for risk management and funding. AS sets a brochure price for its cosmetic products six months ahead and typically hedges a proportion of projected exposures with Foreign Exchange (FX) forwards. The treasurer is concerned about the accuracy of the current FX hedging programme and wants to quantify the impact of these exposures from changes in FX rates. In addition, the treasurer is keen to look at alternative hedging strategies including currency option structures. The treasurer is discussing option strategies with a foreign exchange dealer at one of its banks and has asked the bank to provide an indicative quote for the company to purchase an option to sell GBP, buy EUR in six months' time. The strike price quoted is 0.85 (i.e. EUR1 = GBP0.85), although this ignores the option premium which will need to be included in the all-in-hedged rate. It should be noted that treasury policies prohibit the company from writing options.

B01 Which type of FX risk is managed by hedging the brochure price?

A Economic risk.
B Pre-transaction.
C Transaction.
D Translation.

B02 Which technique is being referred to as part of the review of the accuracy of the current hedging programme?

A Forecasting.
B Monte Carlo simulation of ratio analysis.
C Sensitivity analysis.
D Value at risk.

B03 If the FX rate is 0.95 on the exercise date, would the company exercise the option (ignoring the cost of the upfront premium)?

A Depends on other factors.
B It cannot be determined based on the information provided.
C No.
D Yes.

B04 The treasurer is discussing option strategies with which type of counterparty?

A Bank.
B Broker.
C Government body.
D Other corporates.

B05 Which of the following is required to calculate the all-in FX hedged rate for AS's option contracts?

- **A** Administration costs.
- **B** Interest costs.
- **C** Option premium.
- **D** Time value of money.

Case study 2

Marko is a large U.S. international pharmaceutical business selling its products worldwide. The treasury function manages the key financial risks that the business faces through several strategies including over the counter (OTC) and exchange traded derivatives for its foreign exchange (FX) and interest rate hedging. A new finance director has recently been appointed and has asked the treasury team to review the treasury policies. In particular, the finance director is keen to understand if some of the treasury risks can be mitigated by a change in the risk response to either avoid certain risks or accept certain risks. Part of the review should also include the use of exchange traded derivatives as senior management have raised questions around the cashflow impact and administration involved in relation to counterparty risk. The treasurer is also concerned about working capital management and in particular the increase in inventory prices. The finance director has asked the treasurer to consider other actions to mitigate this risk. In addition, Marko has a financing requirement in the next 12 months and plans to access strong GBP debt markets. However, it needs EUR to match the assets and income of its European operations more closely and is planning to use a derivative to manage the FX and interest rate risk.

B06 Which part of the ACT risk management framework is the finance director referring to?

A Risk assessment.
B Risk evaluation.
C Risk reporting.
D Risk response.

B07 What is the primary concern that could have been raised by senior management around the use of exchange traded instruments?

A Cash and administration of daily margin.
B Counterparty risk minimal.
C Documentation.
D Liquidity.

B08 Which hedging action is being considered by the treasurer?

A Fixed price contract with the supplier.
B FX forward contact.
C Maintain a minimum supply of inventory.
D Match sales and costs per currency.

B09 Which counterparty will Marko most likely use to manage the risks on the new GBP debt?

A Broker.
B Financial exchanges.
C Investment or commercial bank.
D Other corporate.

B10 Which instrument is Marko planning to use to manage the risks on the new GBP debt?

- **A** Cross currency swap.
- **B** Currency option.
- **C** FX forward.
- **D** FX spot.

Case study 3

CIQ is a large global mining company based in South Africa. CIQ wishes to modernise its treasury function and has recently updated its policies. In addition, the company has upgraded its treasury management system (TMS) and is focused on managing liquidity risk and addressing new emerging risks. The treasurer is keen to embrace treasury developments by exploring green finance initiatives. CIQ has a funding requirement in the next two years and is keen to explore environmental, social and governance (ESG) bonds although the treasurer needs to understand more about this market and has heard that the coupon is higher than non-ESG bonds. As part of the risk assessment process for these emerging risks the treasurer needs to measure the risk. At a recent ACT conference different measures of probability were discussed and the treasurer favours using what has happened in the past as an indicator to the future. CIQ is willing to take on significant risks as long as it has the necessary risk management strategies and internal controls in place

B11 What is a key difference between ESG bonds and non-ESG bonds?

- **A** Coupon on ESG bond tends to be lower than non-ESG bonds.
- **B** Coupon on ESG bonds tend to be higher than non-ESG bonds.
- **C** Coupon on ESG bonds tend to be the same as non-ESG bonds.
- **D** Liquidity in both markets tend to be the same.

B12 What is the key risk that CIQ needs to address within the next two years?

- **A** Counterparty risk.
- **B** Foreign exchange.
- **C** Liquidity.
- **D** Technology risk.

B13 What measure of probability does the treasurer prefer?

- **A** Estimates.
- **B** Press releases or market data.
- **C** Refer to historical incidents.
- **D** Statistical measures.

B14 Why is CIQ willing to take on additional significant risks?

- **A** Increase shareholder value.
- **B** Invest surplus funds.
- **C** To attract and retain staff.
- **D** To keep up with the competition.

B15 Who in CIQ has overall responsibility for managing these risks?

- **A** The board.
- **B** Senior management.
- **C** All employees.
- **D** Chief executive officer.

Case study 4

Global Products (GP) has a new treasurer who is undertaking a review of treasury risks across the company. The treasurer discovers that the company does not maintain a list of treasury related risks and decides to prepare a risk register. In order to assess the risks systematically, the treasurer uses the following risk map where each risk is recorded according to its likelihood of happening and its potential impact. It is also agreed that the risk register and risk map will be updated on a regular basis.

		Likelihood of occurrence			
		Low	**Medium**	**High**	**Certain**
Impact	**Catastrophic**	B	B	A	A
	High	C	B	B	A
	Medium	D	C	B	B
	Low	D	D	C	B
	Not material	E	D	D	C

One of the risks identified on the risk register is interest rate risk. Global Products has GBP100m of borrowings at a floating rate of SONIA plus a margin of 1.5%. The financing includes an interest cover covenant which the treasurer is keen to protect. GP has been discussing with one of its relationship banks the possibility of swapping this floating rate exposure fully into fixed interest rates. The bank has quoted a fixed rate of 4.0% against SONIA flat.

B16 Why is GP undertaking a review of treasury risks?

A As part of the monthly reporting pack process.

B Audit requirement.

C To help manage treasury risks in a systematic manner.

D To update its operational procedures manual.

B17 Using the likelihood/impact matrix above, which risks should be the highest priority?

A Risks identified as ‘A’.

B Risks identified as ‘B’.

C Risks identified as ‘C’.

D Risks identified as ‘D’.

B18 Why should GP regularly update the risk register?

A For external reporting requirements.

B For monthly reporting requirements.

C To allow management to react to changes in the business.

D To ensure the likelihood/impact matrix is up to date.

B19 If the company entered into the interest rate swap, what would be the all-in borrowing cost?

A 1.5%.

B 2.5%.

C 4.0%.

D 5.5%.

B20 Which of the following is GP's treasurer's most important consideration in managing interest rate risk?

A Ancillary business to its relationship bank.

B Greater flexibility.

C Minimising cashflow.

D Protecting the interest cover covenant.

Case study 5

GTA is a US car manufacturer and has recently acquired a European competitor. It is now in the process of integrating the business including head office functions such as treasury. GTA is looking to make an investment to automate a section of the assembly line and the treasurer is working with finance colleagues to determine the potential risk/return. A finance manager has asked about the risk-return trade-off. This investment is viewed as a high-risk project, so the finance manager wants to understand the impact this is likely to have on the expected return. As part of the treasury integration plan, there are several non-material risks which the treasurer feels do not need to be managed but should be monitored to ensure the materiality does not increase. The new investment is GBP20m but will be funded in USD. The treasurer is reviewing the foreign exchange (FX) risk and considering different FX strategies including possible option strategies. GTA and its subsidiaries have the necessary board approval to purchase options but are not allowed to sell options. The type of option being considered is the most common type and allows the purchaser to exercise the option at any time up to the expiry date. The treasurer is also considering zero-cost collars in order to reduce the upfront cost although this would require board approval.

B21 Why is it important for GTA to fully understand and manage its significant risks?

A Resources are limited.

B To ensure only acceptable risks are taken.

C To ensure only higher expected return investments are undertaken.

D To identify opportunities for adding value.

B22 In relation to the non-material risks, what approach is the treasurer considering?

A Ignore as they are low probability.

B Ignore as they have low impact.

C Insure rather than hedge due to the cost.

D Retain and review regularly.

B23 Which type of option is being considered by GTA?

A American.

B Asian.

C Bermudan.

D European.

B24 Would the treasurer consider writing options alone to hedge an underlying exposure?

A Cannot tell without further information.

B No.

C Possibly.

D Yes.

B25 Why is the treasurer considering the use of a zero-cost collar?

A It is the recommended approach.

B To give greater flexibility.

C To reduce the option premium.

D Treasury policy allows this.

Case study 6

CR is a US-based manufacturer with international operations. CR holds a large investment balance and has been holding more cash because of the COVID-19 outbreak. The investment balance comprises cash and an investment portfolio. The treasury manager has been asked to review the counterparty risk and has decided to undertake Value at Risk (VaR) analysis to measure the risk on the investment portfolio and has decided to use the variance-covariance methodology. The portfolio has a capital value of USD500m with a daily standard deviation of 0.27% and returns follow a normal distribution with the standard deviation of a one-tailed confidence level of 1.65. The board has approved limits based on the credit ratings which determine the amount of cash and derivatives that can be undertaken. However, there are very few banks that have the strongest credit ratings, so the treasurer has been asked to review the limits to ensure the company is not exposed to counterparties which may not perform their obligations under the financial contacts CR has with its banks. CR is operating in an environment of low interest rates and is concerned that interest rates will fall further which will impact the cashflows it receives under its investments.

All figs in GBP million	AAA	AA	A	BBB
Cash & cash equivalents	500	250	50	-
Derivatives	100	50	25	-
Total	600	300	75	-

B26 What is the main concern that the treasurer has in relation to CR's investment balances?

- A Ancillary business concerns.
- B Liquidity risk.
- C The counterparty will fail to honour its side of the contract.
- D The credit ratings of the banks are low.

B27 What is the maximum amount of exposure CR can have with an AA rated bank?

- A GBP75m.
- B GBP250m.
- C GBP300m.
- D GBP600m.

B28 What is the maximum one-day VaR loss in the value of the investment portfolio 1.65?

- A USD1,350,000.
- B USD2,227,500.
- C USD2,700,000.
- D USD4,455,000.

B29 How could CR hedge the risk of interest rates falling?

- A Diversification of its investment balances
- B Invest in floating interest rate investments.
- C Undertake an interest rate swap to pay fixed, receive floating.
- D Undertake an interest rate swap to receive fixed, pay floating.

B30 What action has CR taken because of the COVID-19 pandemic?

A Control framework.

B Electronic dealing.

C Increased cash buffers.

D Remote working.

Section C – 40 marks
This section consists of 4 case study form questions

Question 1

Smeeth is a Swiss manufacturer of watches and has recently disposed of a glass manufacturing business in Poland for USD220m. This is a large disposal for the business and current plans are for no further acquisitions or disposals this financial year.

Smeeth plans to invest these proceeds for six months in an equity-based security that has historically achieved a 10% return. The assumptions made are that the security offers a normally distributed return with an expected mean (μ) return of GBP11m and a standard deviation (σ) of = GBP1.2m.

a. Using the information in the case study calculate:
   i) the probability that the security will generate returns above GBP12m
   ii) the probability that the security will generate returns below GBP9m
   iii) the range where 95% of possible investment returns will fall for this investment.

(6 marks)

b. Discuss why the statistical analysis, by itself, may be inadequate when assessing the attractiveness, or otherwise, of this investment choice for Smeeth?

(4 marks)

(Total 10 marks)

Question 2

Fair Pumping (FP) is a UK manufacturer of pumps for garden ponds. It supplies to garden centres which are its main sales outlets, and it has an online presence where it sells directly to consumers. It imports pump components from Asia but has recently noticed an increase in costs. Additionally, local labour costs have risen which has contributed to smaller margins on the product and the expectation is that the UK economy is weakening too.

FP has financed itself with bank borrowing, including term loans and an overdraft that has not been used so far. It has invested in upgrading its production facility and took out a five-year borrowing facility from its main relationship bank. This was for GBP40m based on six-month SONIA and no margin was quoted. There is still one year to run on this outstanding debt and the loan is fully drawn.

FP has some covenants on its debt such as interest cover which it is keen to maintain so that it can maintain its credit rating.

The group treasurer believes that interest rates are going to increase in the near term and so wishes to lock into current rates. FP's bank has offered to arrange a short swap where FP will pay 4.75% fixed for one year and receive six-month SONIA.

For simplicity ignore any discounting of cashflows for the calculations.

a. Calculate the annual cashflow cost/benefit of the swap if:
   i) the SONIA rate increases and remains at 6.0% per annum for the full year
   ii) the SONIA rate is 6% per annum for the first six months and increases to 8% per annum for the second six-month period.

(5 marks)

b. Discuss FP’s risk management approach and the actions taken.

(5 marks)

(Total 10 marks)

Question 3

SpeedyAir (SA) is a European airline that provides flights around Europe for both holiday and business customers. After five years of strong sales growth, the pandemic has curtailed SA's sales significantly.

SA's gearing level is high and unsurprisingly over the last year both its profitability and cashflow have been significantly impacted. Also, as an airline, SA's revenues are very seasonal. The business uses a revolving credit facility (RCF) to fund cash flow deficits when they arise.

SA currently uses a risk matrix as its sole tool to prioritise its risk management actions. SA's treasurer has just updated the matrix to reflect current trading conditions. Five key financial risks have been identified as shown in Table 1 and then categorised in the matrix.

Table 1

Risk Category	Severity	Frequency	Description
Foreign exchange (FX)	10%	2 years	Sales revenue and profitability if FX rates rise.
Liquidity (LQ)	11%	4 years	Unexpected payment demands exceed available headroom within borrowing facilities available.
Funding (FU)	9%	2 years	Challenge of replacing maturing debt.
Interest rate (IR)	5%	4 years	Interest rate costs rising and lower consumer demand.
Operational (OP)	3%	5 years	Risk of significant human error in the treasury function.

Risk matrix

		Likelihood or Frequency				
		Very unlikely > 25 years	Low 10 -25 years	Medium 3- 10 years	High 1-3 years	Certain/ very probable yearly
Severity of occurrence on Earnings per Share	Catastrophic > 25%					
	High 10% - 25%			LQ	FX	
	Medium 5% - 10%			IR	FU	
	Low 2% - 5%			OP		
	Insignificant <2%					

a. Analyse the risk matrix produced by the treasurer and recommend, with reasons, how SA should prioritise the management of its financial risks.

(3 marks)

b. Discuss three potential shortcomings of SA's current approach to prioritising its financial risk management actions.

(3 marks)

c. Recommend and justify the actions SA should take to improve its current financial risk management strategy.

(4 marks)

(Total 10 marks)

Question 4

Zen Mode (ZM) is a UK online fashion retailer which has experienced strong growth over the last five years. Its main market initially was the UK, but it has now expanded its sales to Europe, US, Asia and the rest of the world (ROW). Its main competitors are in the UK and in Germany.

ZM's main suppliers are based in Asia, with over 70% of its products sourced from countries in this region. Most of these purchases are paid for in USD.

A breakdown of ZM's revenues and costs is shown in Table 1.

Table 1

	UK	Europe	US	Asia	ROW	Total
Sales	40%	30%	12%		18%	100%
Cost of Sales	10%	20%		70%		100%

As an online business, ZM's operations are minimal. its central functions including its treasury team are based in the UK. ZM's sales invoices are raised in local currencies.

A summary of information taken from ZM's latest financial accounts is shown in Table 2. The cash held is mostly invested in money market deposits and a money market fund. The debt was raised last year over a five-year term on a variable rate to fund an investment in a distribution centre in France.

Table 2

	GBPm
Sales	3,200
Cost of Sales	1,800
Operating Profit	150
Cashflow	400
Cash	350
Gross debt	300

a. Discuss the types of financial risk that are of significance to ZM at the current time.

(6 marks)

b. Explain the actions ZM could take to manage two financial market risks it is currently experiencing.

(4 marks)

(Total 10 marks)

Formulae sheet: Unit 5 Risk Analysis and Management

Standard normal distribution

$$Z = \frac{X - \mu}{\sigma}$$

Where:

Z = number of standard deviations from the mean#

X = value of the outcome

μ = mean

δ = standard deviation.

Annuity Factor

$$AF_{n,r} = \frac{1- (1+r)^{-n}}{r}$$

Where:

r = periodic interest rate

n = number of periods.

Value at risk

$VaR = E * \sigma * Z_{score}$

Where:

E = exposure amount

σ = standard deviation

$Z_{\text{-score}}$ = is the number of standard deviations from the mean of the normal distribution that corresponds to the desired level of confidence or probability.

Answers and Unit references – Section A

Question	Learning outcome	Correct answer	Question	Learning outcome	Correct answer
AO1	LO13	B	A13	LO13	A
A02	LO13	A	A14	LO15	C
A03	LO14	A	A15	LO15	B
A04	LO13	D	A16	LO15	D
A05	LO13	B	A17	LO15	C
A06	LO13	B	A18	LO15	D
A07	LO13	A	A19	LO15	A
A08	LO15	D	A20	LO15	C
A09	LO14	B	A21	LO13	C,D
A10	LO14	C	A22	LO13	B,C,D
A11	LO15	B	A23	LO14	B,C,E
A12	Calculations / LO15	C	A24	LO14	A,E

Question	Unit	Correct answer	Question	Unit	Correct answer
A25	LO13	B,C	A28	LO14	C,D,E
A26	LO13	B,D	A29	LO14	B,E
A27	LO13	A,C	A30	LO14	A,E

Answers and Unit references – Section B

Question	Learning outcome	Correct answer	Question	Learning outcome	Correct answer
BO1	LO13	C	B13	LO14	C
B02	LO14	C	B14	LO15	A
B03	LO14	D	B15	LO15	A
B04	LO15	A	B16	LO13	C
B05	LO15	C	B17	LO14	A
B06	LO13	D	B18	LO14	C
B07	LO14	A	B19	LO15	D
B08	LO14	A	B20	LO15	D
B09	LO15	C	B21	LO13	B
B10	LO15	A	B22	LO13	D
B11	LO13	B	B23	LO14	A
B12	LO13	C	B24	LO14	B

Question	Unit	Correct answer	Question	Unit	Correct answer
B25	LO15	C	B28	L014	B
B26	LO13	C	B29	LO15	D
B27	L014	C	B30	LO15	C

	Syllabus refs:	Mark Scheme	
C1a	U5:2.2 LO14	i) Z = (12-11)/1.2 = 0.83, look up in table = 0.2033 = 20.33%	2 marks
		ii) Z = (9-11)/1.2 = -1.67, look up in table = .0475 = 4.75%	2 marks
		iii) GBP 11 +/_ 1.96 (1.2) = GBP 8.65 to GBP 13.35 (use tables or central limit theorem to identify 1.96 as the 2.5% level)	2 marks
C1b		Historical data: Statistical analysis such as those used above are limited by looking at the past and assuming that this is likely to repeat itself. The return of 10% is higher than average long-term equity returns and may not continue. Low probability events: Events from a normal distribution do not take account of extreme events i.e. very low probability events such black swan events. Additionally, equities tend to be log-normal rather than a normal distribution. Qualitative factors: There are also other more qualitative factors that need to be considered in relation to this investment. What is the risk appetite of the business? Is this within the instruments allowed for investment? What are the chances of needing the funds within the six-month time frame? Diversification: Smeeth should consider the whole investment portfolio rather than individual investments as there may be diversification and correlation benefits.	(4 marks) Total 10 marks

C2a	**Syllabus refs: U5:3.1: LO15**		

ii)		**Interest rates & cashflow**	**Explanation**	
Net benefit	%	1.25	(6- 4.75)	**1 mark**
Swap Benefit	GBP	500,000		**1 mark**

ii)		**Interest rates & cashflow**	**Explanation**	
1st 6 months	%	3		**½ mark**
2nd 6 months	%	4		**½ mark**
Annual therefore	%	7		**½ mark**
Net benefit	%	2.25	(7- 4.75)	**½ mark**
Swap Benefit	GBP	900,000		**1 mark**

(up to 3 marks)

C2b

Discussion of risk management approach:

- the swap rate seems very low compared to the SONIA rate and it is very beneficial to lock the 4.75% rate in now for the year
- Given FP has some interest covenants, it would be sensible to fix the GBP40m if profitability and margins are being squeezed
- However, given FP is still borrowing GBP40m, it would be more sensible to lock in a swap for a number of years rather than just one year
- FP should be taking a more holistic view of the debt portfolio rather than one specific borrowing. It should then carry out some modelling to find out the sensitivity of its covenants to rising interest rates and an economic downturn
- Bank borrowing will always have a margin, so the loan documentation should be checked to verify what this is

1 mark per point

(up to 5 marks)

Other relevant observations will be rewarded

Total 10 marks

C3a **C3b** **3c**	**Syllabus refs: U5:5.1.2: LO13**	Risk Matrix • FX risk should have the highest priority for SA, based on the risk map and operational risk the least priority. • Liquidity risk and funding risk should be prioritised equally, with interest rate risk having less priority than these two. • So the order is FX, LQ/FU, IR and OP • Liquidity risk probability of four years looks optimistic given the financial situation Shortcomings of the current approach • The risk matrix does not consider interdependencies and correlations between the risks. • The model is a point in time and not dynamic as risks change, so useful that it has been recently updated. • The quantification of the risks is on an arbitrary basis and lacks numeric rigour. • Liquidity risk should be a priority as lack of liquidity could result in the business ceasing to trade. Hence likely to be a much higher priority than FX. Financial Risk Management strategy • The risk matrix has omitted the most volatile risk – commodity exposure for an airline – this is likely to be more significant than FX risk so should be included in the matrix. • Given the linkages between the risks such as FX and commodities, sensitivity or scenario analysis would provide better information about the risk impact. • If profitability and cashflow fail to turnaround – liquidity is likely to become the most pressing risk and so SA should seek to obtain additional sources of funding now. **Other valid responses will be rewarded.**	**1 mark per point (holistic marking)** **(up to 3 marks)** **1 mark per point (holistic marking)** **(up to 3 marks)** **1 mark** **1 mark sensitivity analysis** **1 mark scenario planning** **1 mark** **(up to 4 marks)** **Total 10 marks**

C4a **C4b**	**Syllabus refs: U5:5.3.2 LO15**	Financial Risk identification • Foreign exchange: transactional: This is a key risk for ZM in terms of sales and especially cost of sales. The fact that the purchases are in USD, potentially hides the underlying currency from an import country. There is a definite mismatch of currencies shown by the segmental analysis • Foreign exchange: Economic: with competitors both locally and in Europe, there will be strategic FX risk relating to pricing • FX translation: ZM has operations in France and these will result in FX gain/losses on consolidation • Counterparty risk: commercial transactions: Whenever ZM enters into a transaction with another entity, there is the risk that the counterparty will not fulfil obligations by paying the amount due or delivering goods • Counterparty risk: banks: As ZM have invested its cash in MMD and MMF there is some potential counterparty risk • Interest rate risk: with long term debt, ZM will have some interest rate risk. This will be partly offset assuming, profitability grows with a rising economy and interest rates **Other valid responses will be rewarded.** NB: Students should only be rewarded for coverage of financial market risks, namely interest rate and types of FX risk. Appropriate coverage for each financial market risk relevant to ZM: • FX Transactional: Attempting to net same currencies flows as much as possible. For the remainder take out foreign exchange forward contracts for a proportion of the exposure, where material • FX Economic: Monitor competitors, aim to understand their cost bases and then diversify production and operations outside of the UK • FX translation: This is likely to be less material than the other FX risks. Action could be to borrow in EUR and fund the operation in France with this debt • Interest rate risk: Converting the debt to a fixed/capped interest basis would remove volatility; possible options would be IRS or purchase of a cap **Other valid responses will be rewarded.**	**½ mark to identify and ½ mark to discuss per bullet** **(up to 6 marks)** **½ mark per appropriate financial risk identified** **(maximum 2 risks) and up to 1½ marks for each explanation of actions that could be taken.** **(up to 4 marks)** **Total 10 marks**

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