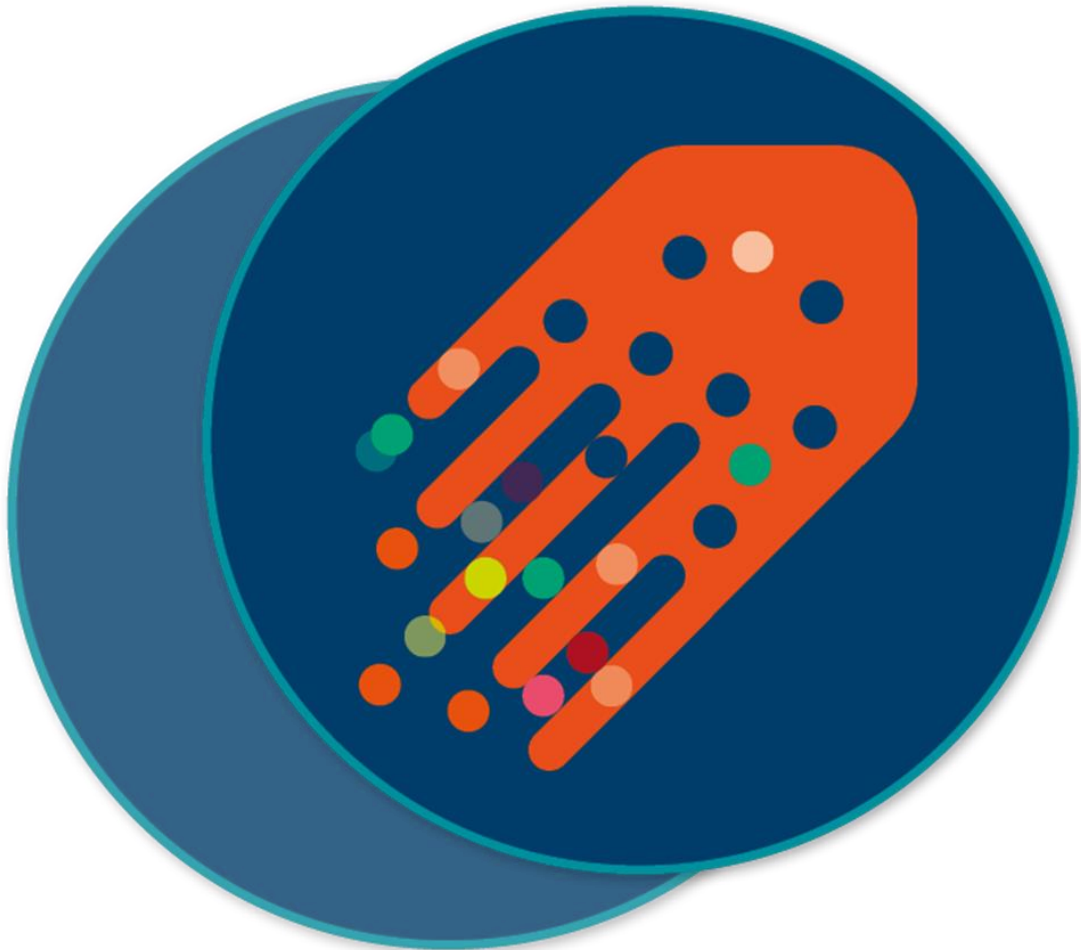




TREASURY
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ACT Practice paper 2

Certificate in International Cash Management
(CertICM)



Practice paper 2 for the Certificate in International cash Management (CertICM)

Based on the syllabus assessed from 01 October 2021.

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 CertICM assessments. It contains a practice exam as well as practice answers.

Ideally, students should have completed the majority of their CertICM studies 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 CertICM 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: CertICM

This paper is a professional paper that as well as testing theory expects application to practice at an operational level.

The best way to approach written assessments is to work methodically through the questions. Candidates should not spend too much time on any one question if you are struggling to think of an adequate answer. Remember you can flag any question to come back to later should you want to continue your way through the exam.

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 response could make the difference between passing and failing.

Please ensure you show your workings within your answer when prompted as this means there are marks available for the workings out. You will be able to make rough workings on a piece of paper during the exam and on screen should you wish to, however these will not count towards your final mark.

Assessment information

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

CertICM assessment test specification:

Section	Amount 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 knowledge, analysis, application and justification as appropriate.
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 CertICM assessment.

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 formula sheet located on page 31 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 the final stage that completes the daily cash management process?**
- A Balancing currency values through foreign exchange swaps.
 - B Consolidating balances in each country.
 - C Executing cross border transfers.
 - D Funding the net deficit or investing the net surplus.
- A02 When assessing a company's creditworthiness, which of the following conclusions is a credit rating agency most likely to reach if there is an unusually high level of debtors?**
- A Invoicing is accurate and timely.
 - B Management is poor at collections.
 - C Payments to suppliers are mostly late.
 - D Working capital management is highly efficient.
- A03 Earnings before interest, tax, depreciation and amortisation (EBITDA) is a good proxy for measuring which of the following?**
- A Cashflow.
 - B Net debt.
 - C Short-term Liquidity.
 - D Tangible net worth.
- A04 Which of the following is the most appropriate for high value international customer receipts?**
- A Automated clearing house system.
 - B Direct debit.
 - C Multi-lateral netting solution.
 - D Real-time gross settlement system.
- A05 Environment, social and governance (ESG) factors primarily affect which of the following risks for an organisation?**
- A Counterparty risk.
 - B Financial risk.
 - C Reputational risk.
 - D Settlement risk.

- A06 Which of the following actions is an organisation most likely to take first when considering ways to improve visibility of its cash balances?**
- A A large-scale closure of bank accounts.
 - B A rationalisation of its bank relationships.
 - C An audit of its bank accounts.
 - D An implementation of SWIFT reporting.
- A07 Intercompany payments managed centrally, are settled through a:**
- A clearing centre.
 - B netting centre.
 - C procurement centre.
 - D re-invoicing centre.
- A08 Company A buys GBP600,000 worth of goods from Company B and Company B buys GBP850,000 from Company A. What will be the cost saving if bilateral netting is agreed, assuming two days cost of float at 3.15% and a 365-day basis?**
- A GBP103.56.
 - B GBP207.12.
 - C GBP250.27.
 - D GBP293.42.
- A09 The unique feature of a 'dematerialised' letter of credit is that it has been issued:**
- A in a non-domestic currency.
 - B in an electronic rather than paper-based format.
 - C with a cancellation option for the issuing bank.
 - D with an additional guarantee from a second bank.
- A10 Which of the following standard clauses within a typical notional pooling agreement is used to confirm that no prior lien exists on any credit balances held with the relevant bank?**
- A Changes in circumstances.
 - B Cross guarantees.
 - C Legal right of offset.
 - D Representations and warranties.
- A11 When scenario planning for a sharp downturn in commercial activity, an organisation is most likely to model its:**
- A dividends.
 - B growth.
 - C liquidity.
 - D profitability.

- A12 Which of the following best describes the ACT's Ethical Code? The Code is:**
- A a binding set of principles that members must follow.
 - B a guidance document for corporates to minimise reputational risk.
 - C a procedures template for good treasury governance.
 - D an advisory professional standards framework aimed at student members.
- A13 In a USD cash sweeping arrangement between companies whose functional currency is GBP, FX gains or losses would be reported in the:**
- A balance sheet of the account owner only.
 - B balance sheets of the account owner and the header account owner.
 - C income statement of the header account owner only.
 - D income statements of the account owner and the header account owner.
- A14 Stamp duty can best be described as which of the following?**
- A A levy on cross-border transactions between group companies.
 - B A levy on documents required to legally record certain transactions.
 - C A sales tax based on the value of intellectual property.
 - D A tax payable on intercompany loan interest in certain jurisdictions.
- A15 The Financial Conduct Authority (FCA) is encouraging major global banks to transition away from which of the following benchmark rates?**
- A Euro Short-Term Rate (ESTER).
 - B London Interbank Offered Rate (LIBOR).
 - C Secured Overnight Financing Rate (SOFR).
 - D Sterling Overnight Index Average (SONIA).
- A16 According to IFRS 9, recourse financing through invoice discounting will be typically accounted for as which of the following?**
- A Accounts receivable.
 - B Debt.
 - C Inventory.
 - D Trade payables.
- A17 The impact of which of the following taxes is the most important to consider when arranging a cross-border intercompany royalty payment?**
- A Import duty.
 - B Stamp duty.
 - C Value-added tax.
 - D Withholding tax.

A18 An encrypted message could be referred to as:

- A cleartext.
- B context.
- C cyphertext.
- D plaintext.

A19 Which of the following is an example of 'disruptive innovation' which enables peer-to-peer lending using smart contracts?

- A Big data technology.
- B Challenger banks.
- C Decentralised finance.
- D Machine learning.

A20 Electronic bank account management (eBAM) systems are designed to facilitate which of the following?

- A Aggregating payments through the most efficient route.
- B Matching transaction confirmations between two parties.
- C Providing real-time market rates and prices.
- D Updating and allocating authority limits.

A21 Which TWO of the following are the final steps in a typical machine learning adoption process to support a company with its cashflow forecasting?

- A Build the model.
- B Determine the scope.
- C Develop the hypothesis.
- D Integrate the tool.
- E Validate the model.

A22 Which of the following statements specifically refer to the role that robotic process automation (RPA) can play in cashflow forecasting?

Select ALL that apply.

RPA has the capability to:

- A analyse aggregated data by using graphs and charts.
- B generate computer algorithms within the process.
- C improve the timeliness and accuracy of data provision.
- D remove the need for an online banking portal.
- E take out repetitive manual tasks from the activity.

- A23 Which THREE of the following processes are specific to building a range forecast?**
- A Analysis of risks and opportunities within the business unit cashflows provided.
 - B Application of working capital ratios onto a projected sales forecast.
 - C Apportionment of the total forecast cashflows in a period into individual business unit cashflows.
 - D Assessment of the likelihoods of outcomes projected by business unit cashflows.
 - E Calculation of a 'single point' cashflow forecast.
 - F Production of a statistical probability curve based on different predictions for cashflow outcomes.
- A24 Which TWO of the following would be classified as negative covenants in bank loan documentation?**
- A Event of default under another facility.
 - B Maintenance of a minimum net worth ratio.
 - C Obligation to maintain property and facilities.
 - D Requirement to comply with all laws and regulations.
 - E Restriction on capital purchases.
- A25 Which of the following money market instruments can be traded on active secondary markets?**
Select ALL that apply.
- A Bank time deposits.
 - B Certificates of deposit.
 - C Commercial paper.
 - D Repos.
 - E Treasury bills.
- A26 Which TWO of the following are typical geo-political risks a treasury could face in emerging or volatile markets?**
- A A black swan event.
 - B A sudden depreciation in the value of local currency.
 - C The imposition of local capital controls.
 - D The participation of local accounts in interest optimisation schemes.
 - E The revaluation of functional currency balances in local accounts.
- A27 Which THREE of the following are quantitative measures of treasury departmental performance?**
- A Accuracy of cash forecasting.
 - B Development of bank relationships.
 - C Efficiency of staff.
 - D Provision of valued advice.
 - E Subsidiaries' participation in intercompany netting.
 - F Timely process completion.

A28 The scope of ISO 20022 Financial Services, covers which of the following?

Select ALL that apply.

- A Cheques.
- B Commodities.
- C Foreign exchange trade.
- D Payment initiation.
- E Trade services.

A29 Which of the following are characteristics of a software as a service (SaaS) technology delivery?

Select ALL that apply.

- A Bandwidth requirements are minimal.
- B Data is usually held by the vendor.
- C Interfaces are developed and maintained internally.
- D No system installation is required.
- E The system is accessed through a web browser.
- F There is opportunity for significant customisation.

A30 According to the Centre for Finance, Technology and Entrepreneurship (CFTE) framework, which THREE of the following are features of 'better' innovation?

- A High customer acquisition costs.
- B Tight margins.
- C Transformative technology.
- D Unbundling.
- E Uncertain consumer demand.
- F Unclear business model.

Section B – 30 marks

This section consists of MCQs based on mini scenarios (1 scenario with 5 accompanying MCQs)

Case study 1

FlySave Airline (FA) is a low-cost European air travel provider, which is back to operating at full capacity following the COVID-19 pandemic. The group's treasury team is monitoring the fuel hedging position very closely as FA's fuel usage increases. Fuel hedges are executed centrally by treasury and then distributed to each operating unit through intercompany trades. The trades are settled once a month along with all other intercompany transactions to reduce settlement costs.

FA has recently acquired a US corporation, Hopper Holidays (HH). FA's treasurer intends to include HH's cash balances into FA's existing cash pool but in the meantime is considering borrowing HH's surplus cash to repay EUR debt due to be rolled over in the next few days. HH has an available cash balance of USD23,466,000 which is currently earning no interest.

The treasurer is comparing the cost of borrowing EUR20m for one month (30 days) on its revolving credit facility (RCF) at a rate of 1% with utilising the funds available from HH. It would be a requirement that the loan from HH would be fully hedged. The EUR/USD spot rate is 1.1735 and the one-month forward rate is 1.1733.

FA disposed of its small Icelandic subsidiary during 2020 and is due to receive a final payment of EUR10m deferred consideration from the purchaser. FA's corporate lawyer has requested that treasury provide details of the payment once it is received and irrevocable.

Transaction charges applied by the Icelandic purchaser's bank are usually EUR125 per transaction or 0.005% based on transaction value. In respect of the EUR10m deferred consideration transaction, the purchaser has confirmed that the bank transaction fee will be levied on an 'ad valorem' basis. FA is calculating the net amount it will receive if the purchaser fails to bear the transaction fee itself.

B01 Which principal risk is FA managing with its hedging portfolio?

- A Commodity risk.
- B Currency risk.
- C Interest rate risk.
- D Liquidity risk.

B02 How does FA settle its intercompany trade transactions?

- A Intercompany cross border transfers.
- B Multilateral intercompany netting.
- C Notional intercompany pooling.
- D Physical intercompany pooling.

B03 Which borrowing mechanism will be cheaper for FA and what is the saving on the EUR20m borrowing?

- A Fully hedged loan from Newco resulting in a saving of EUR13,258.
- B Fully hedged loan from Newco resulting in a saving of EUR20,075.
- C RCF resulting in a saving of EUR13,258.
- D RCF resulting in a saving of EUR20,075.

B04 FA's corporate lawyer is seeking confirmation about which of the following concepts relating to the disposal proceeds?

- A Availability.
- B Finality.
- C Float.
- D Value-dating.

B05 Which of the following is the net EUR amount of the incoming payment FA would receive if the purchaser does not bear the charges?

- A EUR10,000,500.
- B EUR9,995,000.
- C EUR9,999,500.
- D EUR9,999,875.

Case study 2

Lakers Pont (LP) is a very large multinational corporate which has grown by acquisition and now has a fragmented banking structure with a total of nearly 1,000 bank accounts held by its 76 corporate operating units. These bank accounts are held in 30 countries across four regions. In total, LP maintains 95 separate banking relationships. A highly experienced treasury team has been put in place to plan and implement a global cash management improvement project.

LP usually uses a 5-week moving average to forecast future cashflows, but has found the accuracy of this forecasting approach to be unreliable. The project team is using historical actual cashflows from weeks 39 to 50 to test accuracy of the forecasting technique and to review the size of the errors produced. The historical actual cashflows are shown in the table below, but the final four columns need to be completed. LP’s treasurer has suggested that applying exponential smoothing to the 5-week average forecast may improve its accuracy. The treasurer has suggested that an exponential smoothing constant of 0.4 should be applied to the forecast.

Week	Actual cash GBPm	Average forecast		Exponential smoothing forecast	
		5-week moving average forecast	Error	Forecast $\alpha = 0.4$	Error
39	653.9				
40	702.3				
41	678.5				
42	659.8				
43	677.7				
44	641.6				
45	622.0	672.0	(50.0)		
46	589.1	655.9	(66.8)		
47	594.4	638.0	(43.6)		
48	625.9	625.0	0.9		
49	634.2	614.6	19.6		
50	644.8	613.1	31.7		

The LP treasurer has highlighted that the cashflow forecasts are derived from multiple spreadsheets produced by the individual operating units, meaning that there are inherent risks involved with the current process of creating group forecasts.

The treasurer has also confirmed that the ‘actual cash’ figures shown in the 39 to 50-week table include sources of cash incorporated within a wide international cash management definition of ‘available funds’.

- B06 Which of the following solutions is most likely to provide the optimal banking solution for LP?**
- A A single bank per country.
 - B A single global bank.
 - C Two banks per operating unit.
 - D Two banks per region.
- B07 The 'five-week moving average forecast' and 'error' figures for week 44 should be shown as:**
- A 672.0 and (30.4) respectively.
 - B 672.0 and 30.4 respectively.
 - C 674.4 and (32.8) respectively.
 - D 674.4 and 32.8 respectively.
- B08 The 'exponential smoothing forecast' and 'error' figures for week 48 should be shown as:**
- A 576.9 and 49.0 respectively.
 - B 611.6 and 14.3 respectively.
 - C 620.6 and 5.3 respectively.
 - D 625.3 and 0.6 respectively.
- B09 Which of the following systems could assist LP the most with its cash forecasting?**
- A Confirmation matching system.
 - B Enterprise resource planning system.
 - C Market information system.
 - D Multi-bank dealing system.
- B10 Which of the following sources of cash has the LP treasurer included in the 'actual cash' figures in the table?**
- A Cash balances held in countries with currency controls.
 - B Joint venture profits.
 - C Undrawn portions of committed credit facilities.
 - D Undrawn uncommitted credit facilities

Case study 3

Rally Logic (RL) is a medium-sized software company that is conducting a cash management request for proposal (RFP) to a number of banks. The RFP designed by RL is very detailed as the company is seeking information relating to the following issues.

- 1) The need for banks to provide 'end of day' account statement information for a daily upload into the RL treasury management system (TMS). There is a specific SWIFT message type (MT) that will provide data in this way for the TMS.
- 2) RL makes many international cross-border payments. RL's three main objectives for its international payments are:
 - minimising transaction costs
 - improving payment cut-off times
 - reducing the number of counterparties involved in payments.
- 3) The terms of the financing products the banks offer, as RL's funding policy only permits bank financing.
- 4) The credit rating of each bank, as RL's investment policy states that its counterparties must be rated with a 'prime' credit rating.
- 5) The need for RL to optimise its returns on the balances held in foreign currency bank accounts in restricted currencies. The banks have been asked within the RFP to provide a cash management solution that can be applied to these balances.

B11 Which of the following MT standards is needed for RL's daily TMS upload requirements?

- A MT101.
- B MT110.
- C MT200.
- D MT940.

B12 A banking partner with which of the following would be best suited to meet RL's international wire transfer routing requirements?

- A Banking alliance membership.
- B Branch network.
- C Correspondent bank network.
- D Partner bank.

B13 Which of the following sources of financing is RL permitted to use according to its funding policy?

- A Commercial paper.
- B Money market funds.
- C Money market lines.
- D Repurchase agreements.

B14 Which of the following bank credit ratings would be acceptable according to RL's investment policy?

- A Fitch rating 'C'.
- B Moody's rating 'P1'.
- C S&P rating 'B'.
- D Unrated.

B15 Which of the following cash management solutions are the banks most likely to recommend for RL's foreign currency bank accounts?

- A Cross-border notional pooling.
- B Cross-border zero-balancing.
- C Multi-jurisdiction cash concentration.
- D Multi-jurisdiction interest enhancement.

Case study 4

Jubba Bubba (JB) is a Canadian children's snack producer, which has been acquired by a large US food group, Lawler Hills (LH). LH wants to understand how onerous it would be for JB to change banking provider in order to leverage LH's preferential banking fees. JB has a bank agnostic connectivity solution in place, so making changes should be straightforward.

LH has a strict security policy in place that JB now needs to comply with. LH requires the use of digital signatures and expects a strict regime for segregation of duties to be in place. It also sends test phishing emails regularly to find out how employees deal with these. LH has asked JB's treasury to suggest a benchmarking key performance indicator (KPI) that would satisfy its policy regarding the use of the test phishing emails.

The acquisition of JB by a publicly listed US corporate has meant a change in the company's corporate governance requirements. JB must now comply with Sarbanes Oxley (SOX) legislation. JB is advising all of its external stakeholders of the impact that SOX will have upon it, starting with those most impacted.

LH is also undertaking a review of all its ethical policies in light of the changing group structure and will publish its updated policies by the end of the year.

B16 Which of the following methods of connectivity does JB currently have?

- A Bank proprietary software.
- B Electronic banking platform.
- C Host-to-host.
- D Third party aggregator.

B17 Which of the following types of risk is LH primarily addressing with its security policy?

- A Counterparty risk.
- B Financial risk.
- C Geo-political risk.
- D Operational risk.

B18 Which of the following KPIs is most likely to satisfy LH's policy requirements for benchmarking JB's treasury performance in relation to the phishing emails?

- A Number of employee queries regarding the test phishing emails.
- B Percentage test phishing email pass rate compared to the other finance teams.
- C Target pass rate of the test phishing emails.
- D Time taken to respond to the test phishing emails.

B19 Which of the following of JB's external stakeholders is most likely to be advised first about the impact of SOX regulation?

- A Auditors.
- B Derivative banks.
- C Money market funds.
- D Technology providers.

B20 Which of the following will be included in LH's current policy review?

- A Anti-corruption policy.
- B Bank relationship management policy.
- C Dividend policy.
- D Finance policy.

Case study 5

Levin Warren (LW), a company headquartered and operating exclusively in the EU, is just a few days away from its financial year-end. Its accounting team has made various data requests of different teams within the business, as follows:

- treasury team - a projected year-end cash and cash equivalents figure, aligned with the IAS 7 definition
- tax team - the total number of permanent establishments LW holds, according to the definition set out in the Organisation for Economic Co-operation and Development (OECD)'s model tax treaty
- treasury team - confirmation that all parent company guarantees are subject to documented charges
- compliance team - confirmation of compliance with all relevant data protection laws
- tax team – provide some commentary on media speculation that the European Union may make some temporary tax cuts to boost the EU economy. Speculation concerns tax cuts to current sales levies imposed on businesses involved in the manufacture and production of goods.

- B21 Which of the following investments would be included in the treasury team's year-end cash projection?**
- A A one-month certificate of deposit held for investment.
 - B A one-month money market fund investment.
 - C A 120-day advance notice bank account.
 - D A purchased treasury bill with five months to maturity.
- B22 Which of the following would the tax team need to count due to the OECD tax treaty definition? The relevant number of LW's:**
- A independent agents.
 - B information gathering offices.
 - C storage facilities.
 - D workshops.
- B23 The accounting team has requested the treasury team's confirmation relating to guarantees because of the rules relating to:**
- A controlled foreign corporations.
 - B deemed dividends.
 - C thin capitalisation.
 - D transfer pricing.
- B24 The compliance team has been asked to confirm adherence to which of the following?**
- A EMIR.
 - B GDPR.
 - C MiFID.
 - D SOX.
- B25 The tax team needs to provide commentary on the speculation relating to a cut in which of the following?**
- A Import duties.
 - B Overseas offset taxes.
 - C Stamp duties.
 - D Value-added taxes.

Case study 6

Amro Amani (AA), a company headquartered in Dubai, is implementing a treasury management system (TMS). AA has asked the TMS supplier to provide support relating to the mapping of system access rights to ensure best practice is being applied. The TMS supplier has proposed that AA sets up access rights as groups based on the roles of treasury staff.

The first interface AA is setting up in the new TMS is with its existing 360T platform.

Regarding business continuity, AA has been reassured by its supplier in writing about the required level of availability that the new TMS will deliver. The supplier will also provide back-up data centres and appropriate support services.

AA's TMS provider has advised that its next TMS update will include capability to handle all major decentralised cryptocurrencies. This is of interest to AA as it has started to accept trades in some of these.

As a separate initiative, AA is seeking a technological solution to improve its cashflow forecasting accuracy.

- B26 Which of the following is an advantage of the proposed approach to access rights? The approach will allow:**
- A a greater degree of customisation.
 - B flexibility for personnel changes.
 - C systems administrators to be dispensed with.
 - D systems outages to be overridden easily.
- B27 Which of the following system types is being set up in the new TMS first?**
- A Cashflow forecasting system.
 - B Enterprise resource planning system.
 - C Money market fund portal.
 - D Multi-bank dealing platform.
- B28 What has been provided to AA in writing to provide reassurance about its business continuity?**
- A Dealing mandate.
 - B Digital certificate.
 - C Disaster recovery plan.
 - D Service level agreement.
- B29 Which of the following currencies is due to be included in the next TMS update?**
- A Ethereum.
 - B Fiat currency.
 - C The Digital Yuan.
 - D The Sand Dollar.
- B30 Which of the following is most likely to help AA with its forecasting objective?**
- A Artificial intelligence.
 - B Blockchain.
 - C Decentralised finance.
 - D Documentary collection.

Section C – 40 marks

This section consists of 4 case study form questions

Case Study 1

Chinese energy company, Shen Zin (SZ), is headquartered in Shenzhen where the head office and treasury are based. It has three separate operating subsidiaries in Shanghai, Beijing and Tianjin. Each subsidiary runs autonomously and separately from the others.

There is a longstanding rivalry between the subsidiaries, which have always been financially incentivised in return for strong performance. While this competitive culture has provided SZ with impressive results for many years, the management team wants to make changes by bringing the business back together and leveraging its economies of scale.

SZ is a big issuer in the onshore Chinese bond market with an outstanding borrowing of RMB15bn at an average borrowing rate of 4.25%. Bond issues are the responsibility of the central treasury team.

Until recently, treasury has mainly focused on debt management for the company, but is now turning its attention towards cash management.

The three subsidiaries have surplus cash balances, as follows:

- Shanghai - RMB243m
- Beijing - RMB71m
- Tianjin - RMB65m.

The treasurer wants to improve cash optimisation within SZ overall by implementing a new cash management structure and rationalising the number of bank accounts held. A single banking partner would be selected to manage the new structure, whereas currently each subsidiary uses a different banking partner.

The treasurer also considers that the group cashflow forecasting process needs to be reviewed and improved in line with best practice. The current cashflow forecasting process involves uploading subsidiaries' data from SZ's enterprise resource planning system (ERP) into a few large spreadsheets for analysis and consolidation purposes. SZ's group forecasts take time to produce and are often out of date by the time they are finalised.

SZ's system landscape is well established with the whole group using a single ERP system. The treasury team has implemented a sophisticated treasury management system (TMS), although it has focused mainly on developing the 'debt side' of the system. The TMS offers an advanced cashflow forecasting module which includes artificial intelligence (AI) and machine learning (ML) capabilities.

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- a. Discuss the quantitative and qualitative benefits that SZ could gain if the proposed new structure is implemented.

(5 marks)

- b. Discuss how AI and ML could help SZ improve its cashflow forecasting process. You are required to include brief definitions of each within your answer.

(5 marks)

(Total 10 marks)

Case Study 2

US-based academic publisher, Barnes Marley (BM), has recently hired a new cash manager, who was surprised to discover that a large number of cheques are still received by BM. These are split between domestic cheques and cheques from international customers, often in foreign currency.

The new cash manager's predecessor had considerable success in encouraging a large number of BM's customers to pay electronically. However, following their own review, the new cash manager has concluded that there is now a need to seek further efficiencies and cost savings within the cheque collection process itself. This is because there is plenty of evidence held on file to indicate that BM's remaining customers who pay by cheque are unwilling to change their method of payment.

International cheques are the first priority for the cash manager to address, as the bank charges for foreign currency cheques are very high. Also, it can sometimes take several weeks before the BM is credited with cleared funds from these cheques.

The cash manager is keen to use the 'negotiation method' as a tool to improve the cheque process for BM and has decided to issue a request for a proposal (RFP) document to BM's existing cash management banks.

The aim is to compare the value drivers for each bank, so that decisions can be taken about how to allocate BM's cheque collection business in the future.

- a. Outline the actions the cash manager could take to reduce the cost and payment timing of BM's currency cheque collections. Within your answer, you must include an explanation of 'cheque negotiation'.

(5 marks)

- b. Discuss the benefits to BM of using an RFP document to compare the cheque collection services offered by its banking providers and the value drivers the cash manager will be looking for.

(5 marks)

(Total 10 marks)

Case Study 3

Guard Advisors (GA) is an Indian investment firm which is seeking expansion opportunities in Southeast Asia, most notably through a new venture in Thailand, which will be called GA Thailand.

In order to provide its full range of services, GA Thailand needs to be established and become regulated by the Bank of Thailand.

GA is investigating the tax implications for any future profits that could be made from its new venture. The tax team has confirmed that India and Thailand have a tax treaty (double taxation agreement) in place and are investigating which of the three types of treaty it is.

As part of its customer service, GA provides regular updates to its customers on key financial trends. Its latest update is an information document, based on the academic writing of Andreas Antonopoulos, about three types of cryptocurrencies:

1. Money of the People
2. Money of the Government
3. Money of the Corporation.

a) Explain the purpose of a tax treaty and the **THREE** types of treaty GA's tax team are investigating. Your explanation must include the type of treaty the tax team would prefer.

(5 marks)

b) Describe the information GA is likely to include within its latest customer update.

(5 marks)

(Total 10 marks)

Case Study 4

Happy Money (HM) is an EU-based retail finance provider of short-term loans between EUR1,000 and EUR15,000.

HM has decided to refine its cashflow forecasting process for loan repayments due from its customers. HM's cash manager believes that the forecasting process currently being used is out of date and does not reflect current best practice.

HM's business model is to raise funds in the wholesale financial markets which it then uses to provide credit to its own customers. The retail finance market is competitive, so efficiency is very important to HM as it operates on tight profit margins. It is therefore in HM's interests to keep its own borrowing to a minimum and for the shortest terms that its cashflow will allow.

After due consideration, the cash manager intends to use the 'distribution model' cash forecasting technique in future in relation to HM's customer loan repayments.

HM is categorised as a financial counterparty (FC) under European Market Infrastructure Regulation (EMIR). It is not required to meet EMIR's clearing or margin obligations, but must meet the risk mitigation obligations for a FC as it has a small portfolio of interest rate derivatives and does not clear them through a central counterparty.

a. Explain why cashflow forecasting is important for HM and how the 'distribution model' could help it to forecast customer loan repayments.

(5 marks)

b. Summarise the EMIR risk mitigation obligations that HM is subject to.

(5 marks)

(Total 10 marks)

Formulae sheet: CertICM

Calculating proceeds of the sale of an investment in the secondary market

$$\text{Proceeds} = \frac{\text{Future Value}}{\left[1 + \left(\text{Interest rate} \times \frac{\text{Days}}{\text{Year basis}} \right) \right]}$$

All-in cost of borrowing commercial paper

Annualized All-In Cost

$$= \frac{\text{Total issue costs}}{\text{Issue proceeds}} \times \frac{\text{Year basis}}{\text{Days}}$$

All-in cost of borrowing using a committed credit line

Annualized All-In Cost

$$= \frac{\text{Interest charges} + \text{Commitment fee}}{\text{Average net drawdown}} \times \frac{\text{Year basis}}{\text{Days}}$$

Practice guide: Section A

Answers and references to relevant unit and learning outcome

Question No.	Learning Outcome	Answer		Question No.	Learning Outcome	Answer
A01	01	D		A16	20	B
A02	02	B		A17	21	D
A03	04	A		A18	22	C
A04	03	D		A19	23	C
A05	02	C		A20	22	D
A06	05	C		A21	07	D, E
A07	08	B		A22	07	C, E
A08	09	B		A23	06	A, D, F
A09	10	B		A24	11	A, E
A10	13	D		A25	12	B, C, E
A11	15	C		A26	14	B, C
A12	18	A		A27	16	A, E, F
A13	20	D		A28	17	C, D, E
A14	21	B		A29	22	B, D, E
A15	19	B		A30	24	A, B, D

Practice guide: Section B

Answers and references to relevant unit and learning outcome

Question No.	Learning Outcome	Answer		Question No.	Learning Outcome	Answer
B01	01	A		B16	14	D
B02	01	B		B17	15	D
B03	02	A		B18	16	B
B04	03	B		B19	17	A
B05	04	C		B20	18	A
B06	05	D		B21	20	B
B07	06	C		B22	21	D
B08	06	B		B23	21	D
B09	07	B		B24	19	B
B10	08	C		B25	21	D
B11	09	D		B26	22	B
B12	10	B		B27	22	D
B13	11	C		B28	22	D
B14	12	B		B29	23	A
B15	13	D		B30	24	A

<p>C1a</p>	<p>Syllabus refs: Unit 1:1.1 LO1; Unit 2:2.3 LO7</p>	<p>SZ’s subsidiaries are holding a total cash balance of RMB379m. This is a large sum and if mobilised, could mean that SZ could reduce its external borrowing and thus interest payable, which would then improve the company’s profitability.</p> <p>As SZ’s debt is in the corporate bond market, it would be difficult to repay debt immediately, but there may be upcoming debt maturities that could be financed internally.</p> <p>Implementation of a cash optimisation solution may improve visibility and controls and reduce risk. Treasury has not been focused on the group’s bank accounts so may find that there are redundant or unnecessary accounts still open. Every open bank account represents a control risk and a cost to the business so rationalisation could be beneficial.</p> <p>Once subsidiaries’ bank accounts have been analysed, and rationalised if required, treasury may be able to offer more support with managing bank accounts, funding and providing more advisor services.</p> <p>A big benefit to SZ of consolidating cash resources will be the strength of having treasury managing the relationship with the single bank chosen and leveraging the company’s full size to ensure fees are competitive and efficiencies are implemented to reduce transaction costs where possible. This will contribute to the business objective of leveraging economies of scale.</p>
<p>C1b</p>		<p>Artificial Intelligence (AI) is a description of the technology that enables computer systems to perform tasks that previously required human intelligence. Specialty cashflow forecasting systems have now incorporated AI in their solution to improve the accuracy of cashflow forecasting.</p> <p>Machine learning (ML) is the application of computer algorithms that allows computer programmes to automatically improve through experience. ML uses statistical analysis techniques to build patterns based on pre-existing trends.</p> <p>ML has the ability to process large amounts of data, so would help SZ with the analysis side of the cashflow forecasting process. However, data needs to be accurate before a ML programmer can start to build algorithms and train the model to analyse patterns in the data and make predictions, so a significant amount of pre-analysis would need to be performed.</p>

		<p>If the algorithms and hypotheses are correct, the machine will learn from the inputs it receives, and it will start to create stronger correlations in patterns and refine its forecasts over time. As new data and drivers become known or available, they can be used to update the model, becoming part of the iteration loop and hence improving accuracy of the forecast going forwards.</p>
<p>C2a</p>	<p>Syllabus refs: Unit 3:3.1 LO9; Unit 4:4.1 LO15</p>	<p>Instead of waiting for the collection process to complete before value is received, a company can ask the bank to ‘negotiate’ the cheque. Once the cheque has been deposited, the bank purchases the cheque at a discount off face value and credits the customer’s account immediately with the domestic or USD equivalent of the cheque. Negotiation is used by companies to raise liquidity and to convert a receivable more quickly into collected funds.</p> <p>In order to reduce the cost and timing of currency cheque collections, the cash manager can take a few basic actions:</p> <ol style="list-style-type: none"> 1) Reduce the number of intermediaries where possible by: <ul style="list-style-type: none"> • delivering directly to an international bank branch • sending the cheques directly to their bank’s correspondent • sending the cheques directly to their own bank account overseas where possible. 2) Use faster transit methods by: <ul style="list-style-type: none"> • using a courier for large amounts drawn on overseas centres • using the bank’s internal branch-to-branch courier service. 3) Reduce collection times by: <ul style="list-style-type: none"> • if possible, clearing before weekends and public holidays • using couriers domestically where the local mail system is inefficient • understanding local clearing practice and cut-off times • opening a local lockbox 4) Evaluate costs by: <ul style="list-style-type: none"> • using the above techniques to substitute high cross-border costs with low local costs • balancing collection costs against extra interest earned on high-value cheques 5) Reducing foreign exchange commissions by: <ul style="list-style-type: none"> • opening a currency account in the relevant currency if cheques volumes are high enough and payments can also be made in that currency.

<p>C2b</p>		<p>The RFP document will help the cash manager to quantify the value drivers of each bank and any differentiators between them to inform ongoing negotiations with the bank and a selection if appropriate. These value drivers for BM will include:</p> <ul style="list-style-type: none"> • the cheque depositing process (e.g., automation, interfaces, lockbox services etc.) • the range of currencies the bank is able to process for cheques • the value dating on international cheques – the cash manager will need to prioritise those cheques that have the highest value or highest frequency for BM. • Cost and fee structures • the strength of fraud detection services <p>The RFP is a useful tool for comparison between vendors as answers should be structured in a comparable way as defined by BM in the RFP document.</p> <p>The RFP’s main outcome is to provide a quantitative comparison by using a combination of scorecards to evaluate the responses to the RFP.</p>
<p>C3a</p>	<p>Syllabus refs: Unit 5:5.2 LO21; Unit 6:6.3 LO24</p>	<p>Tax treaties (also known as double taxation agreements) are a set of bilateral agreements between two countries that set out the taxation rights of each country in respect of tax charged in the other. They are designed to facilitate international trade.</p> <p>When a company receives income from an overseas territory that has been taxed at the local level, there are three options in dealing with the potential for double taxation:</p> <ol style="list-style-type: none"> 1. If the tax treaty calls for participation exemption (which prevents the same income from being taxed twice), the income may not be taxed again at the shareholder level. For GA this would be the most preferable tax treaty as it would result in the smallest tax liability on profits earned in Thailand. 2. The overseas tax is used to offset and reduce any domestic tax liability, i.e., the amount of the tax already paid reduces the amount of the tax due at home by an equal or percentage amount. This deduction in taxes would present a smaller tax saving compared to the participation exemption treaty for GA. 3. The overseas tax may simply be allowed as a tax deduction against the domestic tax liability, i.e., the tax paid overseas

		<p>is used as a deduction against domestic income, reducing taxable income. The income in question could be profits of a foreign branch of the company itself, or a payment received from another company resident in the other territory (for example, a dividend, a royalty, or an interest payment). For GA, this would be the least preferable type of tax treaty, as profits earned in Thailand would not reduce the local tax bill as much as the other two options.</p>
<p>C3b</p>		<p><u>Money of the People</u> Examples include Bitcoin and Ethereum. These are fully decentralised cryptocurrencies. They are open, borderless, neutral and censorship resistant.</p> <p>Decentralised cryptocurrencies are maintained and improved by a core developer group which governs by consensus. It is this consensus that maintains the integrity of the currency and reduces the risk of fraud.</p> <p><u>Money of the Government</u> Central Bank Digital Currencies (CBDC) are still in their infancy, but these are most similar to fiat currencies, but in digital form.</p> <p>Central banks could reduce financial service delivery costs and boost transactional efficiency by issuing a cryptocurrency. These currencies would have the most benefits in countries where citizens have difficulty accessing traditional banking channels.</p> <p><u>Money of the Corporation</u> Corporate currencies are at proposal stages within huge tech company headquarters. As an example, Facebook has been considering the development of its own cryptocurrency.</p> <p>Consumer-facing but controlled cryptocurrency use is also emerging through PayPal, who declared in 2020 that they would allow transactions in Bitcoin on their platform. The caveat is that coins cannot be deposited or withdrawn, but they are facilitating instant settlement cross border.</p>
<p>C4a</p>	<p>Syllabus refs: Unit 2:2.2 LO6; Unit 5:5.3 LO19</p>	<p>HM must proactively manage its liquid resources in order to remain competitive and profitable. Inefficiency in the business could lead to potential losses or increased cost of funding that would need to be passed onto customers. The best way to manage resources is to determine future cash through a cashflow forecast.</p>

		<p>Borrowing for longer than necessary is not efficient for HM, as interest rates are less favourable for longer-term loans. It is vital that HM manages its funding appropriately given the nature of its business.</p> <p>The distribution model could be used by HM to allocate total estimated customer receipts for a period into individual flows in order to estimate daily or monthly cash movements.</p> <p>The distribution percentages could be based on historical repayment patterns and calculated using one of the statistical methods, such as moving average or regression analysis.</p> <p>The distribution model would enable HM’s cash manager to determine the average percentage of receipts cleared each business day after credit provision. Other factors such as day of the week, holiday seasons and trends could also be incorporated into the calculation.</p>
<p>C4b</p>		<p>The risk mitigation obligations require counterparties to OTC derivative contracts that are not cleared by a CCP to ensure that appropriate procedures and arrangements are in place to measure, monitor and mitigate operational risk and counterparty credit risk. These include:</p> <ul style="list-style-type: none"> • the timely confirmation of OTC derivative contracts – this requires counterparties to confirm the terms of OTC derivative contracts within a specified period of time (within 1 business day for FCs) • formalised processes that are robust, resilient and auditable in order to: <ul style="list-style-type: none"> ○ reconcile portfolios ○ conduct portfolio compression exercises ○ identify disputes early and resolving them. • monitoring the value of outstanding contracts - for HM this will involve marking to-market on a daily basis or, where market conditions prevent marking-to-market, reliable and prudent marking-to-model • for FCs such as HM, putting procedures in place to report: <ul style="list-style-type: none"> ○ the number of unconfirmed OTC derivative transactions that have been outstanding for more than five business days ○ disputes between counterparties. <p><i>NB: marks to be awarded for the basic content shown in bold; students are not expected to provide all the details shown to score well</i></p>

ACT (Administration) Limited

150 Minories

London

EC3N 1LS

www.treasurers.org

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