

# The ACI Dealing Certificate - Sample Questions

## 1 - Basic Interest Rate Calculations

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**1.1 A 3-month (91-day) deposit of EUR25 million is made at 3.25%. At maturity, it is rolled over three times at 3.55% for 90 days, 4.15% for 91 days and 4.19% for 89 days. At the end of 12 months, how much is repaid (principal plus interest)?**

- (a) EUR 25,962,011.01 \*\*\*
- (b) EUR 25,959,714.91
- (c) EUR 25,948,878.47
- (d) EUR 25,948,648.82

**1.2 A 6-month (182-day) investment of CHF15.5 million yields a return of CHF100,000. What is the rate of return?**

- (a) 1.32%
- (b) 1.29%
- (c) 1.28% \*\*\*
- (d) 0.65%

**1.3 What is the value date of a 2-month outright forward FX transaction dealt today if today's spot date is Wednesday, 30th June? Assume there are no bank holidays and note that this question does not apply to any particular year.**

- (a) 27th August
- (b) 30th August
- (c) 31st August \*\*\*
- (d) 1st September

**1.4 The columns below list short-term cash rates on 3rd and 28th April. Describe the shape of the short-term segment of the yield curve on 3rd April using market terminology. In addition, describe the change in the shape of the curve between 3rd and 28th April.**

	3rd April	28th April
T/N	5.55%	3.99%
S/N	5.41%	3.99%
1W	5.27%	4.01%
2W	5.17%	4.02%
3W	5.06%	4.03%
1M	4.95%	4.05%
2M	4.81%	4.07%
3M	4.69%	4.09%
6M	4.51%	4.14%
9M	4.35%	4.19%
12M	4.25%	4.25%

- (a) positive, steepening
- (b) positive, flattening
- (c) inverted, steepening \*\*\*
- (d) inverted, flattening

## 2 - Cash Money Market

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**2.1 Which of the following groups of money market instruments all typically pay return in the form of a discount to face value?**

- (a) BA, T-bill, USCP, ECP \*\*\*
- (b) Deposit, classic repo
- (c) T-bill, ECP, CD
- (d) BA, T-bill, USCP, CD

**2.2 If the UK branch of a US bank issues a USD-denominated certificate of deposit in London, which of the following types of CD has it issued?**

- (a) euro \*\*\*
- (b) foreign
- (c) domestic
- (d) Yankee

**2.3 Which of the following is the difference between classic repos and undocumented sell/buy-backs?**

- (a) legal title to collateral goes to the buyer in a classic repo, but not in an undocumented sell/buy-back
- (b) collateral changes custody in a classic repo, but not in an undocumented sell/buy-back
- (c) a classic repo is one contract: an undocumented sell/buy-back is two contracts \*\*\*
- (d) income paid on collateral during the term of a classic repo is paid by the issuer of the collateral to the buyer, who immediately pays an equivalent amount to the seller, but income is paid directly to the seller by the issuer in an undocumented sell/buy-back

**2.4 Which counterparty in a classic repo is subject to margin maintenance?**

- (a) seller
- (b) buyer
- (c) both \*\*\*
- (d) neither

**2.5 What happens when a coupon is paid on collateral during a classic repo?**

- (a) the issuer of the collateral pays it to the buyer, who must immediately pay an equivalent amount to the seller \*\*\*
- (b) the issuer of the collateral pays it to the buyer, who holds it to maturity and then pays it (plus reinvestment income) to the seller
- (c) the issuer of the collateral pays it to the seller
- (d) the issuer of the collateral pays it to the buyer, who can keep it

### 3 - Cash Money Market Calculations

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**3.1 What is the value at maturity of a new 3-month (91-day) CD with a face value of GBP200 million and a coupon of 4%?**

- (a) GBP 198,025,173.61
- (b) GBP 200,000,000.00
- (c) GBP 201,994,520.55 \*\*\*
- (d) GBP 202,022,222.22

**3.2 What is the secondary market value of a GBP200 million 4% CD originally issued for 3 months (91 days) that is trading at 3.65% after 60 days?**

- (a) GBP 200,789,781.86
- (b) GBP 200,800,684.72
- (c) GBP 201,370,272.70 \*\*\*
- (d) GBP 201,389,244.64

**3.3 A 3-month (91 day) UK Treasury bill with a face value of GBP50 million is quoted at a rate of discount of 4.25%. How much is the bill worth?**

- (a) GBP 47,875,000.00
- (b) GBP 49,462,847.22
- (c) GBP 49,470,205.48 \*\*\*
- (d) GBP 49,475,460.27

**3.4 A dealer repos out EUR10,565,503.42 of the 5.25% DBR 2008 for 7 days at a rate of 2.75%. What are the start and total final cash flows through this repo?**

- (a) EUR 10,565,000.00, EUR 10,570,649.34
- (b) EUR 10,565,503.42, EUR 10,571,153.03 \*\*\*
- (c) EUR 10,565,503.42, EUR 10,575,075.64
- (d) EUR 10,565,510.42, EUR 10,571,160.03

**3.5 What market value of collateral does a dealer need against USD50 million in cash in a 3-day reverse repo at a rate of 2.10% if he takes an initial margin of 2%.**

- (a) USD 52,000,000
- (b) USD 51,000,000 \*\*\*
- (c) USD 50,000,000
- (d) USD 49,000,000

## 4 - Foreign Exchange

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### 4.1 The function of a voice-broker is:

- (a) to match buyer and seller as an agent
- (b) to discover and disseminate the best bid and offer rates in the market
- (c) to aid price discovery in the market
- (d) all of the above \*\*\*

### 4.2 If the differential between 3-month USD LIBOR and 3-month GBP LIBOR widens, what happens to the 3-month GBP/USD forward points:

- (a) they widen \*\*\*
- (b) they narrow
- (c) depends on the spot rate
- (d) cannot say

### 4.3 Which of the following transactions will hedge a short outright 3-month EUR/USD position?

- (a) buy spot EUR/USD, lend 3-month EUR, borrow 3-month USD
- (b) sell & buy 3-month EUR/USD, buy spot EUR/USD
- (c) buy outright 3-month EUR/USD
- (d) all of the above \*\*\*

### 4.4 If a dealer were to “buy and sell 10 million USD/JPY 3-months”, he would be doing:

- (a) an FX swap involving a spot purchase of USD 10 million against JPY and a sale of USD 10 million against JPY in 3 months at the current 3-month forward rate\*\*\*
- (b) an outright forward involving buying USD 10 million in 3 months against JPY at the current 3-month forward rate
- (c) a matched purchase and sale of USD 10 million against JPY in 3 months with different counterparties at the current 3-month forward rate
- (d) a matched purchase and sale of USD 10 million against JPY in 3 months with different counterparties at the future spot forward rate

### 4.5 What is the ISO code for gold?

- (a) GLD
- (b) XAU \*\*\*
- (c) ORO
- (d) AUR

## 5 - Foreign Exchange Calculations

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**5.1 Spot USD/CHF is quoted to you at 1.1250-55. If you sold CHF 15,000,000 at this quote, how many USD would you receive in exchange?**

- (a) USD 16,882,500.00
- (b) USD 16,875,000.00
- (c) USD 13,333,333.33
- (d) USD 13,327,410.04 \*\*\*

**5.2 Spot EUR/USD is quoted at 1.0055-60 and spot GBP/USD at 1.5575-80. What is the EUR/GBP cross-rate?**

- (a) 0.6456-57
- (b) 0.6454-59 \*\*\*
- (c) 1.5482-95
- (d) 1.5661-73

**5.3 Using the following rates, calculate the 6-month EUR/USD outright forward rate.**

Spot EUR/USD 1.1155  
6-month (182-day) EUR deposits 3.25%  
6-month (182-day) USD deposits 2.05%

- (a) 1.1087
- (b) 1.1088 \*\*\*
- (c) 1.1222
- (d) 1.1223

**5.4 Using the following rates, calculate the value-tomorrow rate for GBP/USD.**

Spot GBP/USD 1.7590-95  
T/N GBP/USD 1/2

- (a) 1.7588-94 \*\*\*
- (b) 1.7589-93
- (c) 1.7591-97
- (d) 1.7592-96

**5.5 What is the 1-month EUR/THB rate?**

Spot USD/THB 5.8756-61  
Spot EUR/USD 1.3155-60  
1-month (31-day) USD/THB 215/220  
1-month (31-day) EUR/USD 1/par

- (a) 4.4828-35
- (b) 4.4831-32
- (c) 7.7294-29
- (d) 7.7570-7.7619\*\*\*

## 6 - Forward-Forwards, FRAs, money market futures & swaps

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**6.1 In order to hedge a 6x12 forward-forward loan that you have made, you could;**

- (a) Buy a 6x12 FRA \*\*\*
- (b) Buy a strip of money market futures if contracts were available for the period
- (c) Receive fixed on a 1-year annual/6s interest rate swap
- (d) Take a 12-month deposit

**6.2 You have taken a USD loan that is priced at 3-month LIBOR+20. LIBOR for the loan will be re-fixed in exactly one month. The market is quoting:**

1x3 USD FRA 2.55-57%  
1x4 USD FRA 2.61-64%  
1x6 USD FRA 2.75-78%

**To hedge the next LIBOR fixing, you should:**

- (a) Sell a 1x3 FRA at 2.55%
- (b) Buy a 1x3 FRA at 2.57%
- (c) Buy a 1x4 FRA at 2.64% \*\*\*
- (d) Sell a 1x4 FRA at 2.64%

**6.3 You have taken a position on future interest rates by buying a 1x4 (89-day) EUR 150 million FRA at 3.15%. If EURIBOR for the contract period turns out to be 3.27%, what is the settlement amount and do you pay or receive?**

- (a) you pay EUR 44,143.14
- (b) you receive EUR 44,143.14 \*\*\*
- (c) you pay EUR 44,500.00
- (d) you receive EUR 44,500.00

**6.4 What is the variation margin due on 10 EURIBOR futures contracts sold at 97.255 if the closing rate on the same day is 97.45?**

- (a) you must pay EUR 48.75
- (b) you will receive EUR 487.50
- (c) you must pay EUR 4,875.00 \*\*\*
- (d) you will receive EUR 4,875

**6.5 How are Overnight-Index-Swaps settled?**

- (a) periodic exchange of fixed and floating payments up to and including maturity
- (b) at maturity by net payment
- (c) after maturity by exchange of fixed and floating payments
- (d) after maturity by net payment \*\*\*

## 7 - Options

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**7.1 What is the name for an option which gives the holder the right but not the obligation to exercise the option on any one of a number of agreed periodic dates spread over the life of the option?**

- (a) European
- (b) American
- (c) Bermudan \*\*\*
- (d) Asian

**7.2 What are the components of the premium on an out-of-the-money option?**

- (a) intrinsic value + zero time value
- (b) zero intrinsic value + zero time value
- (c) zero intrinsic value + time value \*\*\*
- (d) intrinsic value + time value

**7.3 What does the rho of a currency option measure?**

- (a) sensitivity of the premium to changes in the delta
- (b) sensitivity of the premium to changes in remaining time to maturity
- (c) sensitivity of the premium to changes in interest rates \*\*\*
- (d) sensitivity of the premium to change in the volatility of the underlying

**7.4 How is a long straddle position constructed?**

- (a) Buy put and call options at the same strike price \*\*\*
- (b) Buy a call option and sell a put at a higher strike price
- (c) Sell put and call options at the same strike price
- (d) Sell a call option and buy a put at a higher strike price

**7.5 How can a short asset position be synthesised from options?**

- (a) buy a call option and a put option at the same strike price
- (b) sell a call option and a put option at the same strike price
- (c) buy a call option and sell a put option at the same strike price
- (d) sell a call option and buy a put option at the same strike price \*\*\*

## 8 - Principles of Risk

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### 8.1 What is a 'vostro' account?

- (a) your account in a foreign currency with another bank
- (b) your account in domestic currency with another bank
- (c) an account held with your bank by another in a foreign currency
- (d) an account held with your bank by another in your currency\*\*\*

### 8.2 Which risks are increased by taking collateral?

- (a) operational risk
- (b) legal risk
- (c) liquidity risk
- (d) all of the above \*\*\*

### 8.3 A dealer makes the following spot EUR/USD transactions:

Buy EUR10,000,000 at 1.1001  
Buy EUR 25,500,000 at 1.0993  
Sell EUR 20,000,000 at 1.1011

If the end-of-day revaluation rate is 1.0990, what is his profit or loss?

- (a) USD 23,350 profit \*\*\*
- (b) USD 23,350 loss
- (c) USD 23,500 profit
- (d) USD 23,500 loss

### 8.4 What is the purpose of risk capital?

- (a) to pay for expected losses
- (b) to pay for unexpected losses \*\*\*
- (c) to meet reserve requirements
- (d) to fund proprietary trading

## 9 - The Model Code

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### 9.1. The Model Code recommends that when banks accept a stop-loss order:

- a) Management ensure ongoing lines of communication between the parties\*\*\*
- b) Management must report to the central bank.
- c) Allow only experienced dealers to take such orders.
- d) Secure the approval of the management of the counterparty to accept such orders.

### 9.2. Where the matter of dealing for personal account is concerned, the Model Code recommends that:

- a) Subject to local legal requirements, the matter is one for bank management to decide.
- b) Bank management should encourage such activities because it allows banks to monitor the gambling habits of their staff.
- c) Where this is allowed, bank management should have a clearly defined policy and written procedures.\*\*\*
- d) Bank management should allow staff to deal with the bank on a case to case basis.

### 9.3. Written confirmation is a function that can be done by:

- a) Any dealer as long as he/she is not a party to the trade.
- b) Staff in the bank-office.
- c) Staff in the dealing room who are not dealing.
- d) Any staff outside the dealing room.

### 9.4 Which of the following is not in the Model Code?

- a) Banks and brokers should record, by tapes or other such means, conversations between dealing counterparties.
- b) Firms do not need to inform new counterparties and clients that conversations will be recorded.\*\*\*
- c) On completion of recordings, tapes should be kept for a period sufficient to enable the details of any transaction contained therein to be confirmed.
- d) The storage of recorded tapes should be strictly managed to prevent their contents from being tampered with.

### 9.5. Brokers or principals assigning interest rate swaps to a third party must ensure:

- a) The principals are aware that they are responsible for assessing the credit of a counterparty and staff are well trained in market practice and aware of the firm's business responsibilities.\*\*\*
- b) The third party is capable of undertaking complex transactions such as assignment, prior approval has been secured from its senior management and its staff understand the risks and obligations.
- c) The assignment is enforceable under local law, that the third party has the legal capacity to act as assignee and that the broker has conducted due diligence on the third party.
- d) The swap has been adequately documented and its assignment is executed under an appropriately structured and clearly written supplementary annex to the master agreement.