# Chapter 10 - Test Bank

###  Multiple-choice questions

[Go to ⇨ Multiple choice questions - Memorandum](#AC10MCQ)

*Answer the following questions by selecting the appropriate answer from the list below.*

**Which of the following asset types qualify as prescribed liquid assets and/or South African Reserve Bank (SARB) collateral?**

1. SARB debentures (RBDs)
2. Treasury bills (TBs)
3. Negotiable certificates of deposit (NCDs)
4. Land Bank promissory notes
5. (i) and (ii) only
6. (iii) and (iv) only
7. (i), (ii) and (iii) only
8. (i), (iii) and (iv) only

**The major component of the level of the SABOR interest rate is the**

1. R157 government bond yield
2. ruling TB discount rate
3. ruling SARB repo rate
4. overnight interbank lending rate

**The price at which a 91-day TB, trading at 8,75 per cent discount, will be quoted by a dealing bank is (ignore bid-offer spread)**

1. R97,818%
2. R91,250%
3. R8,750%%
4. R2,182%

**Investor Sue wants to invest in secondary market Treasury bills (TBs) for one month. She asks four different banks to quote secondary market TB discount rates. Which bank will be chosen by the investor if the following 30-day rates are quoted?**

|  |  |  |
| --- | --- | --- |
|  | **Bid** | **Offer** |
| Bank 1 | 9,60% | 9,50% |
| Bank 2 | 9,75% | 9,65% |
| Bank 3 | 9,65% | 9,55% |
| Bank 4 | 9,73% | 9,63% |

1. Bank 1
2. Bank 2
3. Bank 3
4. Bank 4

**Which of the following are characteristics of South African Reserve Bank debentures (RBDs)?**

1. Interest add-on security
2. Bids accepted in multiples of R5 million minimum
3. Issued for the purpose of monetary control
4. Fully dematerialised into the STRATE system
5. (i) and (iii) only
6. (i), (ii) and (iv) only
7. (i), (iii) and (iv) only
8. (ii), (iii) and (iv) only

**A R5 million Land Bank bill, issued at 8,50 per cent discount for 91 days is sold 31 days before maturity in the secondary market at a new discount rate of 8,70 per cent. If the buyer keeps it until maturity his money market yield will be equal to**

1. 8,76% p.a.
2. 8,83% p.a.
3. 8,89% p.a.
4. 856% p.a.

**Which ONE of the following money market instruments is most commonly issued for the purpose of funding banks in South Africa?**

1. Commercial paper bill
2. Bankers’ acceptance (BA)
3. Negotiable certificate of deposit (NCD)
4. Reserve Bank debenture (RBD)

**An investment manager sold bonds short in the market and enters into a 28-day carry (repo) transaction with bank B in order to fulfil delivery. On day 10 into the carry, the bond coupon is due. How will the coupon payment be treated?**

1. The investment manager receives the coupon and pays it over to bank B on day 10.
2. The investment manager receives the coupon and only compensates Bank B for it on maturity of the carry.
3. Bank B receives the coupon payment on day 10 directly from the issuer of the bond.
4. Bank B receives the coupon payment on maturity of the carry directly from the issuer of the bond.

####

**A promissory note (PN) that is issued for more than one year is regarded as**

1. a negotiable certificate of deposit (NCD)
2. commercial paper (CP)
3. a zero-coupon bond
4. a floating rate note (FRN)

**Which of the following statements with regard to short-term floating rate notes (FRNs) are correct?**

1. The initial spread is adjusted over the life of the FRN to reflect the credit quality of the issuer.
2. FRNs are popular with investors when a rise in the Reserve Bank’s accommodation rate is expected.
3. FRNs with an initial spread of less than the issuer’s credit premium will sell at a discount.
4. The FRN’s coupon interest is calculated by using the exact number of days in an interest period.
5. (i) and (iii) only
6. (ii) and (iv) only
7. (i), (iii) and (iv) only
8. (ii), (iii) and (iv) only

###  Written questions

[Go to ⇨ Written questions - Memorandum](#AC10WQ)

*Answer the following questions.*

**Discuss the regulatory structure of the money market in South Africa.**

**Money market securities issued and traded by the SARB and pledged for collateral are recorded in which electronic systems?**

**Why do banks lend money to each other on an overnight basis in the interbank market?**

**You have to prepare a TB tender on behalf of your bank’s treasury department. The following information is supplied to you:**

* **Yield required on 91-day bills: 6,5 per cent**
* **Amount to tender: R50 million**
1. **Calculate the discount rate and actual tender price that will be submitted.**
2. **Calculate the consideration payable by your bank if the tender is accepted.**

####

**Discuss why bankers’ acceptances (BAs) are no longer traded in South Africa.**

**Tswelopele Fund Management Pty Ltd wants to invest R5 million in NCDs for about six months. It buys a R5 million 182-day NCD, issued by Pennywise Bank at an interest rate of 7,15 per cent per annum.**

1. **Calculate the amount that Pennywise has to pay the holder of the NCD at maturity.**
2. **Tswelopele sells the NCD 85 days before maturity to Pumba Investments at a new market rate of 7,65 per cent per annum. Calculate the amount payable by Pumba.**

####

**Fast Moving Bank (FMB) experiences a seven-day liquidity shortage of R400 million that has to be funded by a repurchase transaction with the SARB. The following information is supplied:**

* **SARB’s required haircut rate = 3,5%**
* **Repo rate = 5,5% p.a.**

**Calculate the following (round all answers to 0 decimal places):**

1. **The repurchase consideration for FMB**
2. **The market value of collateral assets that FMB has to lodge with the SARB for the next week**
3. **The adjusted market value of FMB’s collateral on day 3 if its current market value has changed to R410 669 779**

**Discuss the following characteristics of Land Bank bills (LBBs):**

1. **Motivation for issuance**
2. **Denomination**
3. **Maturity**
4. **Method of issuance**

**Define capital project bills (CPBs) and the motivation for the issuance of such bills.**

**Write a short paragraph on (money market) call bonds. Simply mention how its interest rate is determined, how its par value behaves after issue, and what type of maturity it has.**

###  True or false questions

[Go to ⇨ True/False questions - Memorandum](#AC10TFQ)

*Read the statements below and indicate whether they are true or false.*

**Although the SARB is a considerable buyer of money market securities, its role in this regard is restricted to the purchasing of secondary market securities from commercial banks under the repo system.**

**The JIBAR is published by the SARB and is an offered rate.**

**Negotiable certificates of deposits (NCD) carry higher interest rates than the yield on Treasury bills (TBs) of a similar maturity.**

**According to bank regulation, a maximum of 10 per cent of the amount of prescribed liquid assets a bank has to hold may be obtained by the way of repurchase agreements.**

####

**According to the Commercial Paper Notice, issuers of commercial paper (CP) must disclose the name of the ultimate borrower’s auditor.**

###  Choose the correct term

 [Go to ⇨ Choose the correct term - Memorandum](#AC10CTCT)

*Select the correct term to make the statement accurate.*

**All money market securities are regarded as short-term fixed-income/fixed-rate securities.**

**The securities in the securities ownership register (SOR) are held in individual accounts at nominee/beneficial ownership level.**

**The money market yield for discount instruments is always higher/lower than their discount rate.**

**Bids for Treasury bills (TBs) submitted to the SARB are allotted sequentially in ascending/descending order of price/yield.**

**Promissory notes (PNs) issued by the Land bank are quoted as a yield/price, and are traded on a discount/interest-add on basis.**

# Chapter 10 - Memorandum

###  Multiple-choice questions

[Go back to ⇦ Multiple choice questions](#C10MCQ)

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###  Written questions

[Go back to ⇦ Written questions](#C10WQ)

*Answer the following questions.*

**Discuss the regulatory structure of the money market in South Africa.**

**The money market in South Africa is not subject to any specific legislation. It relies to a large extent on mutual trust among market participants. Such an informal or unregulated market is known as an over-the-counter (OTC) market. However, many money market instruments are issued by large financial institutions, which are subject to legislation.**

**Money market securities issued and traded by the SARB and pledged for collateral are recorded in which electronic systems?**

* **Money Market Internet System (MMIS)**
* **Central Bank Collateral Management (CBCM) system**

**Why do banks lend money to each other on an overnight basis in the interbank market?**

**A bank may find itself with a either a negative or positive net cash situation on its settlement account with the SARB after interbank settlement has taken place between banks to set off various claims.**

**Negative balances are not allowed and must be settled before the following morning. Positive balances are allowed, but since the SARB pays no interest on surplus balances (or any other cash reserves), it does not make good business sense to leave them in the settlement account.**

**Banks with positive free balances will try to lend these (non-borrowed) reserves to the deficit banks on an overnight basis because the latter will otherwise have to borrow funds from the SARB at the repo rate, which is usually more costly. In addition, interbank overnight loans are non-secured.**

**You have to prepare a TB tender on behalf of your bank’s treasury department. The following information is supplied to you:**

* **Yield required on 91-day bills: 6,5 per cent**
* **Amount to tender: R50 million**
1. **Calculate the discount rate and actual tender price that will be submitted.**
2. **Calculate the consideration payable by your bank if the tender is accepted.**
3. **id = iy/[1 + (iy × d/365)]**

**i = 0,065/[1 + (0,065 × 91/365)] = 0,065/1,01621 = 0,06396 or 6,40%**

**Price = 1 – (id × d/365)**

**= 1 – (0,06396 × 91/365) = 0,98405 or R98,405% (if third decimal place is not 0 or 5, adjust)**

1. **Consideration = NV × p**

**= 50 000 000 × 0,98405 = 49 202 500**

####

**Discuss why bankers’ acceptances (BAs) are no longer traded in South Africa.**

**BAs have declined in importance in favour of alternative forms of financing for the following reasons:**

* **BAs lost their liquid asset status in 1993, causing a sharp decline in volume. Banks subsequently became less eager to promote BA business with their larger clients.**
* **Borrowers have switched to other forms of short-term financing such as tailor-made short-term loans or by issuing their own commercial paper (CP).**
* **Banks have offered alternative short-term funding products to clients such as fixed-term loans (a non-tradable instrument) and FRNs.**
* **BAs were subject to the R5 item limit in the payment system, which made their administration cumbersome.**

**Tswelopele Fund Management Pty Ltd wants to invest R5 million in NCDs for about six months. It buys a R5 million 182-day NCD, issued by Pennywise Bank at an interest rate of 7,15 per cent per annum.**

1. **Calculate the amount that Pennywise has to pay the holder of the NCD at maturity.**
2. **Tswelopele sells the NCD 85 days before maturity to Pumba Investments at a new market rate of 7,65 per cent per annum. Calculate the amount payable by Pumba.**
3. **MV = N × (1 + i × days/365)**

**= 5 000 000 × (1 + 0,0715 × 182/365)**

**= R5 178 260,28**

1. **Secondary market consideration = MV/(1 + i × days/365)**

**= 5 178 260,28 / (1 + 0,0765 × 85/365)**

**= R5 087 623,91**

####

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* **SARB’s required haircut rate = 3,5%**
* **Repo rate = 5,5% p.a.**

**Calculate the following (round all answers to 0 decimal places):**

1. **The repurchase consideration for FMB**
2. **The market value of collateral assets that FMB has to lodge with the SARB for the next week**
3. **The adjusted market value of FMB’s collateral on day 3 if its current market value has changed to R410 669 779**
4. **Repurchase consideration = N × (1 + i × n) = 400 mil × (1 + 0,055 × 7/365)**

**= R400 421 918**

1. **Collateral required = repurchase consideration × (1 + 0,035)**

**= R414 436 685**

1. **Adjusted market value of collateral on day 3 = current market value/(1 + im)**

**= 410 669 779/(1 + 0,035)**

**= R396 782 395**

**Discuss the following characteristics of Land Bank bills (LBBs):**

1. **Motivation for issuance**
2. **Denomination**
3. **Maturity**
4. **Method of issuance**
5. **LBBs are issued for the purpose of extending short-term financing to agricultural cooperatives or other special farmers' cooperatives.**
6. **LBBs are issued by the Land Bank in denominations of R1 million, R5 million and R10 million (and other denominations on request).**
7. **LBBs are usually issued for periods of 91 days.**
8. **LBBs are currently issued on a tap basis, which means they are sold to investors at prices based on prevailing market conditions.**

**Define capital project bills (CPBs) and the motivation for the issuance of such bills.**

**CPBs are short-term securities issued by large companies and state-owned enterprises (SOEs) to raise funds for the maintenance of certain capital projects or, alternatively, as a means of short-term bridging finance for capital projects while longer-term finance is being arranged.**

**Write a short paragraph on (money market) call bonds. Simply mention how its interest rate is determined, how its par value behaves after issue, and what type of maturity it has.**

* **Call bonds are priced off the one-day variable Johannesburg Interbank Agreed Rate (JIBAR) called the RODI, plus a margin.**
* **Call bonds can be called on any day after issue, which means the maturity date is variable.**
* **Call bonds always trade at par.**

###  True or false questions

[Go back to ⇦ True/False questions](#C10TFQ)

*Read the statements below and indicate whether they are true or false.*

**Although the SARB is a considerable buyer of money market securities, its role in this regard is restricted to the purchasing of secondary market securities from commercial banks under the repo system.**

**True**

**The JIBAR is published by the SARB and is an offered rate.**

**False – the JIBAR is published by the JSE and is a middle rate.**

**Negotiable certificates of deposits (NCD) carry higher interest rates than the yield on Treasury bills (TBs) of a similar maturity.**

**True**

**According to bank regulation, a maximum of 10 per cent of the amount of prescribed liquid assets a bank has to hold may be obtained by the way of repurchase agreements.**

**False – a maximum of 5 per cent of the amount of prescribed liquid assets a bank has to hold may be obtained by the way of repurchase agreements.**

####

**According to the Commercial Paper Notice, issuers of commercial paper (CP) must disclose the name of the ultimate borrower’s auditor.**

**True**

###  Choose the correct term

 [Go back to ⇦ Choose the correct term](#C10CTCT)

*Select the correct term to make the statement accurate.*

**All money market securities are regarded as short-term fixed-income/fixed-rate securities.**

**fixed-income**

**The securities in the securities ownership register (SOR) are held in individual accounts at nominee/beneficial ownership level.**

**beneficial**

**The money market yield for discount instruments is always higher/lower than their discount rate.**

**higher**

**Bids for Treasury bills (TBs) submitted to the SARB are allotted sequentially in ascending/descending order of price/yield.**

**descending; price**

**Promissory notes (PNs) issued by the Land bank are quoted as a yield/price, and are traded on a discount/interest-add on basis.**

**yield; discount**