

**INSTITUTE OF BANKERS IN MALAWI**

**ADVANCED DIPLOMA IN BANKING EXAMINATION**

**SUBJECT: FINANCIAL MARKETS 2 (IOBM – AD320)**

**Date: Sunday, 11th November 2018**

**Time Allocated: 3 hours (13:30 – 16:30 Hours)**

**INSTRUCTIONS TO CANDIDATES**

1 This paper consists of **TWO** Sections, A and B.

2 Section A consists of 4 questions, each question carries 15 marks.

Answer **ALL** questions.

3 Section B consists of 4 questions, each question carries 20 marks. Answer **ANY TWO** questions.

4 You will be allowed **10 minutes** to go through the paper before the start of the examination, you may write on this paper but not in the answer book.

5 Begin each answer on a new page.

6 **Please write your examination number on each answer book used. Answer books without examination numbers will not be marked.**

7 All persons writing examinations without payment will risk expulsion from the Institute.

8 If you are caught cheating, you will be automatically disqualified in all subjects seated this semester.

9 DO NOT open this question paper until instructed to do so.

**SECTION A (60 MARKS)**

Answer **ALL** questions from this section

**QUESTION 1**

1. Explain the performance of the post-Bretton Woods System of ‘flexible’ exchange rates that prevails today. *(5 marks)*
2. Define the following exchange rate systems:
3. Crawling Peg (*2 marks)*
4. The parity band (*2 marks)*
5. Exchange rate band *(2 marks)*
6. Currency basket peg *(2 marks)*
7. Dirty exchange rate system *(2 marks)*

**(Total 15 marks)**

**QUESTION 2**

1. A property developer based in the United States of America (USA) has an interest in a commercial real estate in Malawi. After much negotiation, the property developer has agreed to conclude the sale in three months’ time (91 days).

**Given the following data:**

Spot rate USD/MWK = 1.3050

USD 3- month interest rate = 1.25%

MWK 3-month interest rate = 0.75%

Property Value= MWK20 Million

Property Price= MWK 10 Million

Option Premium = 1%

Strike Price USD/MWK = 1.7000

**Calculate**

1. The 3-month forward rate *(4 marks)*
2. The 3-month forward swap rate *(1 mark)*
3. Suppose the property developer decides not to commit into a contract to buy the property in 3-months’ time. Instead the developer goes to ABC Bank to **buy** an option that gives him the **right to sell dollars** in 3-months’ time (in order to buy the property in 3-months’ time).

**Required**

1. What is the value of the option when if it expires when the market rate is 1.500 and 1.900? *(1 mark)*
2. What premium will the property developer pay if the option expires when the market rate is 1.500 and 1.900? *(1 mark)*
3. Explain what the property developer will do when the option expires when the market rate is 1.700 and 1.900?  *(8 marks)*

**(Total 15 marks)**

**QUESTION 3**

Explain the following concepts:

1. Covered Interest Parity
2. Uncovered interest parity
3. Foreign exchange market efficiency
4. The Eurocurrency market and its relationship to the forward currency market
5. Forward currency markets and the determination of forward exchange rates

**(Total 15 marks)**

**QUESTION 4**

1. **Differentiate** the following terms;
2. Yield to maturity and Yield Curve
3. Nominal Yield and Currency Yield **(***6 marks***)**
4. Highland Limited issues a coupon bond with K1,000 face value that will pay you a coupon payment of K100 per year for ten years and at maturity date repay you K1,200 (the price that you can sell it if you hold it to maturity). The current price of the bond is MK800. Suppose you invest in the bond now and hold it to maturity, what is the bond’s;
5. Nominal Yield *(2 marks)*
6. Coupon Return *(2 marks)*
7. Currency yield at maturity *(2 marks)*
8. Yield to maturity if the price of the bond is MK1, 000 (same as the par value). *(3 marks)*

**(Total 15 marks)**

**SECTION B (40 MARKS)**

Answer ANY **TWO** questions from this section

**QUESTION 5**

1. Define an Option? *(1 mark)*
2. Explain the concept of option pricing models? (*4 marks)*
3. Mention **five** shortfalls of the pricing assumptions in the Fischer Black and Myron Scholes option pricing model in valuing European Call Options? *(10 marks)*
4. Mention the **five** variables of the Black Scholes model (*5 marks)*

**(Total 20 marks)**

**QUESTION 6**

1. Define the following terms:
   * 1. perpetuity bond *(1 mark)*
     2. discounted present value of bonds. *(1 mark)*
2. Calculate the present value of the bond with a yield of 15% which will have an annual income of MK5million in perpetuity. (*4 marks)*
3. A pension fund requires to pay future pensions of K100m in 10 years’ time. Calculate how much the pension fund needs to invest today, if 15% is the current annual interest rate?  *(4 marks)*
4. A bond will pay the following (in Millions):

|  |  |
| --- | --- |
| Time in Years | Cash flow |
| 1 | K1Million |
| 2 | K1 Million |
| 3 | K1 Million |
| 4 | K1 Million |
| 5 | K101Million |

**Required**

Assuming an annual effective rate of 15%, calculate the present value of this investment? *(5 marks)*

e) Explain how interest rate risk can provide both rewards and challenges to an individual or firm with investments in the financial markets? *(5 marks)*

**(Total 20 marks)**

**QUESTION 7**

1. Mention the **four** main objectives for the establishment and operation of collective investment schemes in Malawi. (*4 marks)*
2. With the aid of a diagram:
3. Draw the organisational structure of a collective investment scheme (4 marks)
4. Explain the various roles within the organisational structure. *(12 marks)*

**(Total 20 marks)**

**QUESTION 8**

1. Explain why governments have created bank regulations on the money market.

*(4 marks)*

1. Discuss the **four** objectives of governments’ bank regulation on money markets

*(16 marks)*

**(Total 20 marks)**

**END OF EXAMINATION PAPER**