

**NANYANG TECHNOLOGICAL UNIVERSITY**

**SEMESTER 2 EXAMINATION 2014-2015**

**BU8241 – Money 101**

April 2015

Time Allowed: 2 hours

**INSTRUCTIONS**

1. This paper contains **EIGHT(8)** questions and comprises **SEVEN(7)** pages.
  2. Answer all **EIGHT(8)** questions.
  3. Begin your answer to each question on a separate page of the answer book.
  4. Answers to **Question 1**, which consists of **TWELVE(12) multiple choice questions**, should be recorded on a single page. In your answer book, write the correct answer (A), (B), (C) or (D) for each multiple choice question.
  5. The number of marks allocated is shown at the end of each question.
  6. Answers will be graded for content and clear presentation.
  7. Credit is given for showing relevant workings. Show **ALL** workings, including formula used.
  8. This is a **closed book** examination.
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Question 1

This question consists of **TWELVE(12) multiple choice questions**. In your answer book, write the correct answer (A), (B), (C) or (D) for each multiple choice question on a single page. Each multiple choice question carries **ONE(1)** mark.

- 1) Which of the following S\$ products/services is NOT covered by the Deposit Insurance Scheme?
  - A. Savings accounts.
  - B. Overdrafts.
  - C. All fixed deposits.
  - D. Fixed deposits of more than 12 months' tenure.
  
- 2) A renewability option is most likely to be offered with a/an
  - A. whole life policy
  - B. term policy
  - C. endowment policy
  - D. annuity
  
- 3) A deductible is
  - A. a discount on your car insurance premium.
  - B. the minimum amount paid out on a claim.
  - C. the proportion of the claim that you have to pay.
  - D. the amount you are self-insuring.
  
- 4) The amount you can borrow from your life insurance policy depends on the
  - A. cash value.
  - B. sum assured.
  - C. bonuses allocated.
  - D. premiums you have paid.

Note: Question No. 1 continues on page 3

Question 1 (continued)

- 5) If a bond allows the issuer to redeem the bond before it matures, it is termed a
- A. convertible bond.
  - B. callable bond.
  - C. puttable bond.
  - D. bond with a warrant.
- 6) The suitability of a bond for an immunisation strategy is most closely linked to its
- A. duration.
  - B. term to maturity.
  - C. yield to maturity.
  - D. current yield.
- 7) Under an ILP (investment-linked policy) any mortality charge is paid by
- A. adding units.
  - B. cancelling units.
  - C. reducing bonuses.
  - D. increasing allocations.
- 8) The 90:10 rule applies to
- A. annuities.
  - B. participating policies.
  - C. non-participating policies.
  - D. ILPs (investment-linked policies).
- 9) Under the Supplementary Retirement Scheme (SRS), contributions are \_\_\_\_\_ and withdrawals are \_\_\_\_\_
- A. taxed; taxed
  - B. taxed; not taxed
  - C. not taxed; taxed
  - D. not taxed; not taxed

Note: Question No. 1 continues on page 4

Question 1 (continued)

- 10) A life insurance policy's grace period is the time during which
- A. no cash value is payable
  - B. claims cannot be contested by the insurer
  - C. the insured can cancel the policy
  - D. the policy remains in force if the premium is not paid
- 11) Julia buys 100 units of a unit trust when the price is \$1.05/\$1.10 and sells the units when the price is \$1.23/\$1.29. How much profit/loss does she make?
- A. \$13
  - B. \$18
  - C. \$19
  - D. \$24
- 12) Which of the following does NOT use  $\beta$  ?
- A. CAPM (Capital Asset Pricing Model)
  - B. Jensen's alpha
  - C. Sharpe ratio
  - D. Treynor ratio

(TOTAL: 12 marks)

Question 2

- (a) List five debt problem warning signs that do NOT involve savings balances, emergency funds or credit cards.
- (4 marks)
- (b) Describe the Debt Repayment Scheme.
- (6 marks)
- (c) If a person is declared bankrupt, what are some of the main implications, including (but not limited to) requirements, restrictions and discharge of bankruptcy?

(8 marks)

(TOTAL: 18 marks)

Question 3

On 1 January 2014 a fund manager started investing \$100,000 for Brian. At the end of each quarter, Brian checks the value of his investments. If the value of the investments has increased by more than 3% over the quarter, he invests a further \$10,000. If the value has decreased by more than 3% over the quarter, he withdraws \$15,000. In all other cases, and at the end of the year, he does not invest or withdraw any money.

The following figures were given to Brian when he checked the value of his investments at the end of each quarter:

<i>Date</i>	<i>Value of investments</i>
31 March 2014	\$96,000
30 June 2014	\$91,000
30 September 2014	\$104,000
31 December 2014	\$108,000

Calculate the time-weighted return over 2014 for this fund.

(12 marks)

Question 4

(a) List four limitations of the P/E (Price/Earnings) valuation model.

(4 marks)

(b) Susan currently owns shares of the ABC Company, which are trading at \$5.00 per share. Its annual dividend of \$0.25 has just been paid, and dividends are expected to grow at a constant rate of 3% annually. Using the constant growth dividend discount model, she believes that the share is fairly priced.

What is her required return on the share?

(5 marks)

(TOTAL: 9 marks)

Question 5

- (a) Dennis wants to invest S\$100,000 in a one-year premium currency deposit (PCD). His base currency is S\$ and his alternate currency is NZ\$. The spot rate is currently 1.100; he predicts that on maturity the spot rate will be 1.120.
- Bank A offers an interest rate of 8.00% p.a. and strike price of 1.150
  - Bank B offers an interest rate of 8.01% p.a. and strike price of 1.145
  - Bank C offers an interest rate of 5.25% p.a. and strike price of 1.115

If Dennis wants to receive the highest possible payout in NZ\$, which bank should he choose, and what will his return be, measured in NZ\$?

(8 marks)

- (b) Under what circumstances would an investor be less worried about currency risk with a premium currency deposit (PCD)?

(2 marks)

(TOTAL: 10 marks)

Question 6

The following information is known about a portfolio that earned a return of 7.1% during 2014.

<i>Component</i>	<i>Actual weight</i>	<i>Actual return</i>	<i>Benchmark weight</i>	<i>Benchmark return</i>
Stocks	0.75	Not given	0.70	8.5%
Bonds	0.10	3.0%	0.20	2.0%
Cash	0.15	1.0%	0.10	1.0%

- (a) What was the excess return on the portfolio?
- (3 marks)
- (b) What was the contribution to the excess return of the portfolio attributable to asset allocation? (Express the contribution as a rate of return.)
- (6 marks)
- (c) What was the contribution to the excess return of the portfolio attributable to security selection? (Express the contribution as a rate of return.)
- (3 marks)

(TOTAL: 12 marks)

Question 7

- (a) An investor has decided to invest in REITs (Real Estate Investment Trusts). What factors should the investor consider when selecting a REIT? Explain briefly why these factors are important.

(8 marks)

- (b) Thomas thinks that REITs provide more stable and higher cash flows than a dividend-paying share. Explain why this might be correct.

(7 marks)

(TOTAL: 15 marks)

Question 8

Helen wants to retire in 30 years' time. She thinks she will be able to earn a rate of return of 8% p.a. effective on her investments both before and after retirement.

She plans to save \$800,000 by the time she retires. She will invest a fixed amount each month for 30 years, starting one month from now.

- (a) How much must she invest each month?

(4 marks)

She wants to use the \$800,000 to provide her with 25 annual payouts. Whatever remains after each payout continues to earn an investment return, and after the final payout, nothing is left.

She assumes that after retirement, inflation will be 3% p.a., and she wants her payouts to increase with inflation. For example, if her first payout is \$100, the next payout must be \$103. The first payout will be made the day after she retires.

- (b) How much will her first payout be?

(8 marks)

(TOTAL: 12 marks)

– END OF PAPER –

## **BU8241 MONEY 101**

Please read the following instructions carefully:

- 1. Please do not turn over the question paper until you are told to do so. Disciplinary action may be taken against you if you do so.**
2. You are not allowed to leave the examination hall unless accompanied by an invigilator. You may raise your hand if you need to communicate with the invigilator.
3. Please write your Matriculation Number on the front of the answer book.
4. Please indicate clearly in the answer book (at the appropriate place) if you are continuing the answer to a question elsewhere in the book.