## UNIVERSITY OF COLOMBO

## FACULTY OF ARTS, DEPARTMENT OF ECONOMICS

Postgraduate Diploma in Economic Development (DED) - 2016
DED 508: Financial Markets
Answer Four (04) Questions selecting at least One (01) Question from Each Part
Time Allowed: 03 Hours Only

## PART A

1. 1.1. Explain briefly why it is important to study financial markets
(05 marks)
1.2. Define a financial system and identify its main components together with sub components.
(07 marks)
1.3. Classify financial markets based on different characteristics.
(08 marks)
1.4. Describe the main features of money markets and list the sub markets within the money market in Sri Lanka.
(05 marks)
2. 2.1. A five-year corporate bond is now trading at Rs. 912.96 . The coupon rate is $13 \%$ and coupons are paid annually. Current market interest rate is $15 \%$ p.a and the face value is Rs. $1000 /=$. State whether you would buy this bond and why? Compute the capital gains, if any.
(07 marks)
2.2. Find the price of a financial instruments which pays an annual coupon of Rs. 150 forever. The market interest rate is $12 \%$ p.a.
(03 marks)
2.3. A bank charges $1.5 \%$ per month on its credit cards and claim their Annual Percentage Rate (APR) is $18 \%$. State whether you agree or not with this claim giving reasons.
(03 marks)
2.4. A $12 \%$ coupon Treasury bond is currently trading at Rs. $920 /=$ in the market. It has a face value of Rs. $1000 /=$. Compute the following in respect of this bond;
(a). Current yield of the bond
(b). Yield on discount basis
(06 marks)
2.5. Clarify why government securities are considered to be risk free and explain whether government securities are free from all types of risks.
3. 3.1. A company has a capital of Rs. 10 mn , divided into one million shares. Its profit after tax for 2015 is Rs. 2.5 mn and it pays an annual dividend of Rs. 5.00 per share. The dividends are expected to grow at a constant growth rate of $10 \%$ annually and the investors require a rate of return of $20 \%$ on this stock. The current stock price is Rs. 45 and brokers predict that it will sell for Rs 55 in one year. Answer the following questions.
3.2.1. Compute Earnings Per Share (EPF) and Price Earnings Ratio of the company
(04 marks)
3.2.2. Estimate the price of the stock using Gordon Growth Model of stock valuation and state assumptions of the model
(07 marks)
3.2.3. Explain if you are an investor whether you would buy the stock and the reasons for your decision
(03 marks)
3.2. Suppose that interest rates in Sri Lanka and USA are $10 \%$ and $2 \%$ per annum respectively. Exchange between Rupee and US Dollars is Rs. 150 per Dollar. Estimate the one year forward exchange rate between Rupee and the US Dollar, using Covered Interest Rate Parity Condition (CIP)
3.3. Define Open Market Operations (OMO) of a central bank and list 2 liquidity absorbing and liquidity injecting operations each.
(05 marks)
4. 4.1. Discuss very briefly major factors that affect the determination of exchange rate.
(05 marks)
4.2. Identify the factors that contributed to the development of the Euro currency market. (06 marks)
4.3. Define what is risk structure of interest rates and list the factors that affects the risk structure of interest rates
(06 marks)
4.4. Describe the segmented market theory of term structure of interest rates with suitable graphs.
(08 marks)
PART B
Instructions: Your answers should be brief and lengthy answers are NOT expected.
5. Consider the following order book for stock $X Y Z$.

| Bid |  |  | Ask |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| B11 | 100 | 60.50 | 60.55 | 200 | A14 |
| B12 | 200 | 60.45 | 60.60 | 200 | A15 |
| B13 | 100 | 60.40 | 60.65 | 300 | A16 |

a) Find the best bid and best ask. Hence find the bid ask spread.
(05 marks)
b) Suppose the trader A14 amends the price to 60.50 . Discuss the trade that can happen and update the order book after the execution. Find the new bid ask spread.
(05 marks)
c) After this trade in (b), a new trader B17 wants to buy 100 stocks immediately at the best available price. What this trader should do?
d) Suppose the trader B17 bought the number of stocks he wanted and few seconds later the trader A17 posted to buy 400 stocks at 60.65 . Update the order book.
(05 marks)
e) Briefly discuss the advantages and disadvantages of market orders and limit orders.
(05 marks)
6. (a). (i). Define the terms maturity and par value with respect to a bond.
(03 marks)
(ii). A bond is said to be selling at 110 . Find the selling price of this bond if the par value is $\$ 6000$.
(04 marks)
(iii). When describing a bond, it is stated that " 7 s of $\mathbf{1 2 / 1 / 2 0 2 5 " . ~ W h a t ~ d o e s ~ i t ~ m e a n ? ~}$ (04 marks)
(b). Compute the value of a 4 -year $8.4 \%$ coupon bond with a par value of $\$ 200$ that pays interest annually assuming that the appropriate discount rate is $6.6 \%$. (07 marks)
(c). A Commodity market is a physical or virtual act of buying and selling raw or primary commodities. Commodities can be classified into multiple categories for regulation purposes. Write down the three major categories of commodities by giving two leading products for each category.
(07 marks)
7. (a). Explain briefly with an example how the foreign exchange risk is arisen in crossborder transactions.
(07 marks)
(b). Who are the main participants in Forex market?
(03 marks)
(c). Explain the difference between the direct currency quote and the indirect currency quote. A London based trader imports machineries from Japan. For this trader, what is the direct quote?
(07 marks)
(d). Suppose that the exchange rate for the euro (USD/EUR) increases from 1.0750 to 1.0780.
a. Identify the currencies which have appreciated and depreciated against each other.
b. Hence find the percentage of appreciation.
(04 marks)

