## University of Swaziland <br> Department of Accounting <br> Main Exam Paper - Semester - I

Programme of Study : Bachelor of Commerce
Year of Study $\quad: \quad$ Year Three / Level Five
Title of Paper : Intermediate Business Finance
Course Code : AC 322/415
Time Allowed : $\mathbf{3}$ Hours.

Instructions: 1. Total number of questions on this paper is four (4).
2. Answer all the questions.
3. The marks awarded for a question / part is indicated at the end of each question / part of question.
4. Where applicable, submit all workings and calculations on the answer sheet alongside the case.
5. Calculations are to be made to two decimal places of accuracy unless otherwise instructed.

Note: You are reminded that in assessing your work, account will be taken of accuracy of the language and the general quality of expression, together with the layout and presentation of your final answer.

Special requirement : Financial Calculator

This paper is not to be opened until permission has been granted by the invigilator.

## QUESTION 1:

a) Assume that a 3-year Treasury note has no maturity premium, and that the real risk-free rate of interest is 3 percent. If the T-note carries a yield to maturity of 13 percent, and if the expected average inflation rate over the next 2 years is 11 percent, what is the implied expected inflation rate during Year 3?
b) One year ago Esteem Confectioners, Matsapha, issued 15 year, non-callable, $7.5 \%$ annual coupon bonds at their par value ( $\mathrm{E} 1,000$ ). Today the market interest rate on these bonds is $5.5 \%$. What is the current price of the bond if this is a non-callable bond?
(5 marks)
c) Currently, RSA's Bonds sell for E 1,250. They pay E 120 annual coupon, have a 15-year maturity, and a E 1,000 par value, but they can be called in 5 years at E 1,050. Assume that no costs other than the call premium would be incurred to call and refund the bonds, and also assume that the yield curve is horizontal, with rates expected to remain at current levels on into the future. What is the difference between this bond's YTM and its YTC?
d) You are considering an investment in the common stock of Cowher Corp. The stock is expected to pay a dividend of E2 per share at the end of the year (i.e., $D_{1}=E 2.0$ ). The stock has a beta equal to 1.2. The risk-free rate is 6 percent. The market risk premium is 5 percent. The stock's dividend is expected to grow at some constant rate, g. The stock currently sells for E40 a share. Assuming the market is in equilibrium, what does the market believe the stock price will be at the end of three years? (In other words, what is $\mathrm{P}_{3}$ ?)
e) Assume that you have just received your credit card bill, which has an outstanding balance equal to $\mathrm{E} 4,320$. The credit card carries an $18 \%$ simple interest rate, which is compounded monthly. If you pay E 200 each month, how long will it take to pay off the credit card bill? Assume also that the only charge you will incur from month to month is the interest that must be paid on the remaining outstanding balance.
(5 marks)
Total (30 marks)

## QUESTION 2:

a) "If financial intermediaries did not exist, our standard of living would be much lower." Discuss this statement in light of various economic functions, financial intermediaries perform.
(15 marks)
b) Discuss the types of financial intermediaries by citing appropriate examples from Swaziland.
( 5 marks)
-Total (20 marks)

## QUESTION 3:

a) A company provided the following data.

| Cost Details | Cost per Unit (E) |
| :--- | :---: |
| Raw materials | 52.00 |
| Direct labour | 19.50 |
| Overheads | 39.00 |
| Total | 110.50 |
| Profit | 19.50 |
| Selling Price | 130.00 |

The following additional information is available:
Average raw materials in stock: One month; average materials in process: half-a-month; average finished goods in stock: one month; credit allowed by suppliers: one month; credit allowed to debtors: two months; time lag in payment of wages: one week; and overheads: one week; one-fourth of sales is on cash basis; cash balance is expected to be E120,000.

## Required:

i) Show the working capital needed to finance a legal activity of 70,000 units of annual output. The production is carried throughout the year evenly and wages and overheads accrue similarly.
Note: Calculations be made on the basis of 30 days a month and 360 days a year.
(15 marks)
b) You have been asked to use a CAPM analysis to choose between stocks RSSC and Senorita, with your choice being the one whose expected rate of return exceeds its required rate by the widest margin. The risk-free rate is $6 \%$, and the required return on the market SSX All-share Index is $10 \%$. Your security analyst tells you that Stock Senorita's expected rate of return is $11 \%$, while Stock RSSC's expected rate of return is $13 \%$. The following past rates of return for the two stocks are given.

| Year | Stock $_{\text {RSSC }}$ | Stock $_{\text {Senorita }}$ | Market |
| :---: | :---: | :---: | :---: |
| 1 | $-15 \%$ | $0 \%$ | $-5 \%$ |
| 2 | 5 | 5 | 5 |
| 3 | 25 | 10 | 15 |

## Required:

i) Calculate the beta coefficients for the two stocks and plot the returns of the stocks RSSC (y-axis) and the Market ( x -axis). Show the Beta of RSSC on the graph.
(5 marks)
ii) Set up the SML equation for both the stocks.
(3 marks)
iii) Which stock do you prefer and why?

Grand Total (25 marks)

## QUESTION 4:

a) Good Luck Trucking Co. has the following data:

| Assets | E10, 000 | Profit margin | $3 \%$ |
| :--- | :---: | :--- | :---: |
| Debt Ratio | $60 \%$ | Interest rate | $10 \%$ |
| Tax rate | $40 \%$ | Total asset turnover | 2.0 |

## Required:

i) Calculate Sales, Total debt, Interest, Net Profit
(11 marks)
ii) What is Good Luck's Times-Interest-Earned ratio?
b) The Munnar Corporation wants to determine the effect of its inventory turnover and days sales outstanding (DSO) on its cash-flow cycle. Last year Munnar's sales (all on credit) were E468, 000, and it had a net profit margin of 8 per cent. The cost of goods sold is 60 per cent of sales. Inventory was turned over 12 times during the year, and DSO was 42 days. The firm had negligible amounts of cash and marketable securities, and its Fixed Assets were E150,000. Munnar's payables deferral period is 35 days.

## Required:

i) Calculate Munnar's Cash Conversion Cycle.
ii) Calculate Munnar's total asset turnover and return on assets (RoA)

