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

| Programme of Study | $:$ | Bachelor of Commerce |
| :--- | :--- | :--- |
| Year of Study | $:$ | Year Three / Level Four and 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. If you invest E 600 per year for the next 10 years, how much will your investment be worth at the end of 10 years if your opportunity cost is 10 percent? The first E600 investment will be made at the end of this year.
(5 marks)
b. Vinah, who is a recent college graduate, is making plans to pay back the E80,000 in student loans that she took out during the past 5 years. The student loans require Vinah to pay interest equal to 6.2 percent. Payments will be made monthly, beginning today, and the loans must be repaid within 20 years. How much must Vinah pay each month?
(5 marks)
c. Assume the return on Swazi Government 6 month Treasury Bills is $5 \%$ and the return on Swaziland Stock Exchange (SSX) All Share Index is $10 \%$.
i) Draw a Security Market Line (SML). Market Risk (x-axis0; Required rate of return (y-axis)
ii) Calculate market risk premium
iii) Calculate required return on asset $A$ having a beta of 0.70 and asset $B$ having a beta of 1.3
iv) Draw the betas and required returns from part ' $c$ ' for assets $A$ and $B$ on the axes in part ' $a$ '. Label the risk premium associated with each of these assets and discuss them
( 15 marks)
Total ( 25 marks)

## QUESTION 2:

a. Marova Ross bought a bond when it was issued by RSS Corporation 14 years ago. The bond, which has E1000 face value and a coupon rate equal to 10 percent, matures in six years. Interest is paid every six months; the next interest payment is scheduled for six months from today. If the yield on similar risk investments is 14 percent, what is the current market value of the bond? Will you buy the bond at a price of E800? Why?
(5 marks)
b. Lukhele Nokwanda paid E1000 for a 20 -year bond with a coupon rate equal to 8 percent when it was issued on January 2. If Arnold sold the bond at the end of the year in which it was issued for a market price of E1,850 what return would he earn? What portion of this return represents capital gains, and what portion represents the current yield (CY)?
c. XYZ Incorporated has a current dividend of E3.00 per share ( $D_{0}=E 3.00$ ). Analysts expect that the dividend will grow at a rate of 25 percent a year for the next three years, and thereafter it will grow at a constant rate of 10 percent a year. The company's cost of equity capital is estimated to be 15 percent. What is the current stock price of Garcia Inc.?
d. Given the following information, calculate the expected capital gains yield for Mbabane Tigers Inc. Beta $=0.6 ; \mathrm{r}_{\mathrm{M}}=15 \% ; \mathrm{r}_{\mathrm{RF}}=8 \% ; \mathrm{P}_{0}=\mathrm{E} 25 ; \mathrm{D}_{1}=\mathrm{E} 2$. Assume the stock is in equilibrium and exhibits constant growth.
(4 marks)
e. Seiko Inc. sells all its merchandise on credit. It has a profit margin of 4 percent, days sales outstanding equal to 60 days, receivables of E150,000, total assets of E 3 million, and a debt ratio of 0.64 . What is the firm's return on equity (ROE)?
(10 marks)
Total (30 marks)

## QUESTION 3:

Write Short Note on the following
a. Du-Pont Analysis
b. Does the yield curve indicate future interest rates?
c. Sources of short term financing
d. Working capital financing strategies.
(20 marks)

## QUESTION4:

a. You have recently been hired to improve the performance of Multiplex Corporation which has been experiencing a severe cash shortage. As one part of your analysis, you want to determine the firm's cash conversion cycle. Using the following information, what is your estimate of the firm's current cash conversion cycle?

Current inventory $=\mathrm{E} 120,000$
Annual sales $=\mathrm{E} 600,000$
Accounts receivable $=\mathrm{E} 160,000$
Accounts payable $=\mathrm{E} 25,000$
Total annual purchases $=\mathrm{E} 360,000$
Purchases credit terms $=$ net 30 days
Receivables credit terms = net 50 days
b. The Board of Directors of ABC Cements Ltd. Requests you to prepare a statement showing the working capital requirement forecast for a level of activity of 180,000 units of output. The cost structure for the company's product for the above mentioned activity level is detailed below.

|  | Cost per |  |
| :--- | ---: | ---: |
|  | Unit | (E) |
| Raw materials | 20 |  |
| Direct labour | 5 |  |
| Overheads (including depreciation of E5 <br> per unit) | 15 |  |
| Cost of production | 40 |  |
| Profit | 10 |  |
| Selling price | 50 |  |

Additional Information:
a) Minimum desired cash balance is E20,000
b) Raw materials are held in stock on an average, for 2 months
c) Works-in-progress (assume $50 \%$ completion stage) will approximate to half month's production
d) Finished goods remain in warehouse, on an average, for a month
e) Suppliers of raw materials extend a month's credit and receivables are provided two months' credit; cash sales are $25 \%$ of total sales
f) There is a time lag in payment of wages of a month and half-a-month in case of overheads

## Required:

i) Prepare a statement showing working capital needed

