University of Swaziland
Department of Accounting
Main Exam Paper - Semester - II

Programme of Study	:	Bachelor of Commerce
Year of Study	:	Year Three / Level Five
Title of Paper	:	Corporate Finance I
Course Code	:	ACF318 / AC 325/416
Time Allowed	:	**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. Usuthu Corporation intends to borrow E450,000 to support its short-term financing requirement during the next year. Usuthu buys from its suppliers on terms of 2/20, net 70, and it normally pays on Day 20 to take the cash discount.
But, now, the company is evaluating its financing options as given below.

Option 1:
To forego the discounts and pay on Day 90 to get the needed amount in the form of non-free trade credit

Option 2:
A discount interest loan for three months with a simple interest of 9 per cent

Option 3:
A 10 percent simple interest loan for three months that requires a 15 percent compensating balance. Usuthu normally maintains a negligible deposit at the bank

Required:

i) Compute the APR and EAR for the above three options
ii) Indicate which is the lower-cost source?
Note: Assume a 360-day year. Take 'r' up to five decimal digits

(10 marks)

b. Blue Star is a Bread Company and every year they need 2,600,000 bushels of wheat. Ordering costs are E5,000 per order. Annual carrying costs are 2 per cent of the purchase price of E5 per bushel. On average the supplier takes 40 days to deliver the stock. Blue Star desired to keep in warehouse safety stock equal to 30-day supply of bushels of wheat.
Note: Assume a 360-day year

Required:

i) What is the economic order quantity (EOQ)?
(Round it off to nearest integer for further calculations)
ii) What is the average inventory?
iii) What is the maximum inventory?
iv) How many orders must Blue Star place in a year?
v) At what inventory level must Blue Star place an order?
vi) What will be the total inventory costs if the EOQ is ordered?
vii) What if the supplier offers a quantity discount of 1% for orders more than 550,000 bushels. Should Blue Star go for the quantity discounts or not? Advice.

(15 marks)
Total (25 marks)

QUESTION 2:

a. Hi-Fi Technologies is evaluating whether to change its credit terms from 2/15, net 40 to 3/15, net 40. At present, 40 percent of Hi-Fi sales are paid on day 15 whereas, under the new terms, 50 percent of sales will be paid on day 15. Regardless of the credit terms, half of the customers who do not take the discounts are expected to pay on day 40, whereas the remainder will pay 10 days later. But, as a result of the higher cash discount offered with the new terms, sales are expected to increase from E540,000 to E595,000 per year. Hi-Fi's variable cost ratio is 80 percent and its cost of funds is 10 percent. All production costs are paid on the day of the sale. Should Hi-Fi Technologies change its credit terms? **Note: Assume a 360 day year. Take 'r' up to 5 decimal digits.**

(20 marks)

b. The Weaver Watch Company manufactures a line of ladies' watches that is sold through discount houses. Each watch is sold for E25; the fixed costs are E140,000 for 30,000 watches,or less; variable costs are E15 per watch.

i) What is the firm's gain or loss at sales of 8,000 watches? Of 18,000 watches?
ii) What is the operating breakeven point both in emalangeni and number of units?
iii) What is Weaver's degree of operating leverage at sales of 8,000 units? Of 18,000 units?
iv) What happens to the operating breakeven point if the selling price rises to E31? What is the significance of the change to the financial manager?
v) What happens to the operating breakeven point if the selling price rises to E31 but also variable costs rise to E23 a unit?

(10 marks)
Total (30 marks)

QUESTION 3:

You have been asked by the president of your company to evaluate the proposed acquisition of a Spectrometer for the firm's R&D Department. The equipment's base price is E140,000, and it would cost another E30,000 to modify it for special use by your firm. The Spectrometer can be sold for E60,000 after three years. The firm uses declining balance method to depreciate its non-current assets at 25 percent. Use of the equipment would require an increase in net working capital of E8,000. The spectrometer would have no effect on revenues but it is expected to save the firm E50,000 per year in before-tax operating costs, mainly labour. The firm's marginal tax rate is 40 percent.

Required:

i) What is the initial investment outlay associated with this project?
ii) What are the incremental operating cash-flows in years 1, 2 and 3?
iii) What is the terminal cash-flow in year3?
iv) If the project's required rate of return is 12 percent, should the spectrometer be purchased using NPV method? **(25 marks)**

QUESTION 4:

Write short notes on the following:

i) Some of the techniques that are followed by firms to accelerate cash receipts
ii) Methods used to monitor receivables
iii) Relationship between operating leverage and operating break-even point
iv) Cash-flow versus accounting income

(4*5 = 20 marks)

End of exam question paper