

**NOVEMBER 2018 PROFESSIONAL EXAMINATION  
FINANCIAL MANAGEMENT (PAPER 2.4)  
QUESTIONS & MARKING SCHEME**

**QUESTION ONE**

- a) Choosing a corporate objective of a firm is extremely important and has a determinant factor to the success or failure of a corporation in controlling the market.

**Required:**

Explain **FOUR (4)** objectives of not-for-profit organisations.

**(4 marks)**

- b) Financial markets are the markets where individuals and organisations lend funds to other individuals and organisations.

**Required:**

Explain the following under financial markets

- i) Over the counter market (OTC)
- ii) Dealers market
- iii) Auction market

**(6 marks)**

- c) Identify and explain **FOUR (4)** essential roles performed by a Finance Manager in order for a corporate body to achieve its objectives.

**(10 marks)**

**(Total: 20 marks)**

**QUESTION TWO**

- a) Islamic financing is an emerging model of financing in the global financial markets.

**Required:**

- i) Explain the term **Riba** in Islamic Finance. **(2 marks)**
- ii) Explain the **THREE (3)** perspectives from which **Riba** can be viewed as forbidden or unacceptable in Islamic Finance **(3 marks)**

- b) The Board of Directors of Continental Bank Ghana Ltd (CBGL) decided through a Board resolution to raise additional capital through rights issue to meet the new capital requirement by Bank of Ghana. CBGL plans to issue 1 new share for every 3 shares held by existing shareholders at 10% discount to its existing market price. CBGL currently has 6 million shares in issue at a book value of 2 cedis per share. CBGL maintains a dividend payout ratio of 50% and earnings per share currently is 1.6 cedis. Dividend growth is 5% per annum and this is expected into the foreseeable future. CBGL's cost of equity is 15%. The issue cost is 600,000 cedis.

**Required:**

Calculate:

- i) The market price per share

**(2 marks)**

- ii) The capitalization of CBGL. (2 marks)
- iii) The rights issue price (2 marks)
- iv) The theoretical ex-right price (2 marks)
- v) The market capitalization after the rights issue (2 marks)

- c) KAF is a manufacturer of consumer electronics based in Accra, Ghana. KAF finances its investments with a combination of equity and debt. Its equity capital comprises 10 million shares which are currently trading on the stock exchange at GH¢2.55 per share. Its equity beta is 2.1 currently. The return on the risk-free security is 12.5% while the equity risk premium is 10%.

Included in KAF's debt stock are irredeemable bonds that have a total face value of GH¢10 million while their total market value is GH¢12 million. The annual coupon of the irredeemable bonds is 18% but is paid semiannually.

The directors of the company are considering two new investment opportunities, which are described below:

#### **Project 1**

This is an expansion project in the consumer electronics manufacturing industry. It involves the setting up of a new factory in the northern part of Ghana. KAF would finance it with existing capital.

#### **Project 2**

This involves the installation of a new factory to manufacture furniture for export to foreign markets. Although this investment is a completely new line of business, KAF plans to finance it with existing capital. The average equity beta for the furniture manufacturing industry is 1.52 and average industry capital structure is 60% equity and 40% debt.

It is expected that KAF's tax rate will remain at 22%.

#### **Required:**

- i) Compute the cost of capital that should be used as discount rate for appraising **Project 1**. (5 marks)
- ii) Compute the cost of capital that should be used as discount rate for appraising **Project 2**. (5 marks)

**(Total: 25 marks)**

### QUESTION THREE

- a) Sevista Ltd is evaluating the purchase of a new machine to produce product SEP, which has a short product life-cycle due to rapidly changing technology. The machine is expected to cost GH¢1 million. Production and sales of product SEP are forecasted to be as follows:

Year	Production and sales (units/year)
1	35,000
2	53,000
3	75,000
4	36,000

The selling price of product SEP (in current price terms) will be GH¢20 per unit, while the variable cost of the product (in current price terms) will be GH¢12 per unit. Selling price inflation is expected to be 4% per year and variable cost inflation is expected to be 5% per year. No increase in existing fixed costs is expected since Sevista Ltd has spare capacity in both space and labour terms. Producing and selling product SEP will call for increased investment in working capital.

Analysis of historical levels of working capital within Sevista Ltd indicates that at the start of each year, investment in working capital for product SEP will need to be 7% of sales revenue for that year. Sevista Ltd pays tax of 25% per year in the year in which the taxable profit occurs. The new machine is expected to have no scrap value at the end of the four-year period. Sevista Ltd uses a nominal (money terms) after-tax cost of capital of 12% for investment appraisal purposes.

**Required:**

- i) Determine the net present value of the proposed investment in product SEP. **(13 marks)**
  - ii) Advise whether the project should be undertaken. **(2 marks)**
- b) Fluctuations in interest rate is a major concern to entrepreneurs and business executives. It has been observed that interest rate on loans vary according to the term of the loan. Besides, interest rates vary over time for varied reasons.

**Required:**

- i) Explain **THREE (3)** reasons why interest rates on loans may differ for different maturities as explained by the term structure of interest rate. **(6 marks)**
- ii) Suggest **FOUR (4)** ways of hedging the company's exposure to interest rate risk. **(4 marks)**

**(Total: 25 marks)**

## QUESTION FOUR

Kankam Ghana Ltd currently operates a long working capital cash cycle. Management is considering an initiative to reduce the cash cycle in order to manage the size and cost of the company's working capital. Below are the components of working capital under the existing policy.

	<b>Existing GH¢</b>
Cash	1,000,000
Debtors	4,000,000
Inventory	6,000,000
Creditors	4,000,000

Under the proposed policy or initiative,

- Cash is expected to increase by 50%
- Debtors is expected to reduce by 25%
- Creditors is expected to increase by 25%
- Current ratio is expected to be 1.9 times.

The cost of funds to the company is 20% per annum.

### **Required:**

- a) Calculate the company's net working capital under existing and proposed policies. **(5 marks)**
- b) Compute the change in the company's working capital financing cost if the new policy is implemented. Advise management on whether to implement the new policy. **(3 marks)**
- c) Explain the importance of the cash conversion cycle in ascertaining the working capital needs of the company. **(4 marks)**
- d) Explain **THREE (3)** advantages to be derived from effective management of Accounts Receivable. **(3 marks)**

**(Total: 15 marks)**

## QUESTION FIVE

- a) Flue Ltd wishes to make a takeover bid for the shares of Donc Ltd an unquoted company. The earnings of Donc Ltd over the past five years have been as follows:

	GH¢
2013	40,000
2014	57,600
2015	54,400
2016	56,800
2017	60,000

The average P/E ratio of quoted companies in the industry in which Donc Ltd operates is 10. Quoted companies which are similar in many respects to Donc Ltd are:

- Beans Ltd has a P/E ratio of 15, but is a company with very good growth prospects.
- Wash Ltd has had a poor profit record for several years and has a P/E ratio of 7.

**Required:**

Calculate a suitable range of valuations for the shares of Donc. Ltd **(9 marks)**

- b) Food Ltd has in issue 12% bonds with par value GH¢150,000 and redemption value GH¢165,000 with interest payable quarterly. The cost of debt on the bonds are 8% annually and 2% quarterly. The bonds are redeemable on 30 June 2021 and it is now 31 December 2017.

**Required:**

Calculate the market value of the bonds. **(6 marks)**

**(Total: 15 marks)**

## SOLUTION TO QUESTIONS

### QUESTION ONE

#### a) Objectives of not-for-profit organisations

- **The welfare of employees**

An organisation might try to provide good wages and salaries, comfortable and safe working conditions, good training and career development, and good pensions. If redundancies are necessary, many not for profit organisations will provide generous redundancy payments, or spend money trying to find alternative employment for redundant staff.

- **Survival**

One of the first economic objectives of a non-for-profit is to raise enough money to meet its operating expenses in order to survive. These might include staffing needs, rent, utilities, insurance, furniture, computers and the other normal expenses of running a business. Some non-for-profits are staffed with employees, while others use an association management company or a contract executive director and vendors.

- **Fundraising**

A key economic goal of charities is to raise funds to meet their charitable purposes. The process of fundraising goes beyond holding events or sending out mailings. A complete development effort includes creating a database of regular donors, applying for grants, seeking individual and corporate donations and holding events such as balls, auctions, raffles and sporting events. The cost of fundraising efforts can outweigh the total money spent on an organization's charitable purpose at new or smaller organizations.

- **Compliance**

The GRA sets target qualified distribution, or charitable spending, levels for some tax-exempt organizations, and these organizations set objectives to meet their requirements. For example, if an endowment earns GH¢100,000 annually for a nonprofit and the nonprofit only donates GH¢10,000 of that money, the GRA might fine the organization or ultimately revoke its tax-exempt status.

- **Related and Unrelated Business Income**

Some not-for-profit, especially trade associations that are not not-for-profit, seek to raise money by charging for dues, selling newsletter advertising, sponsorships, educational materials, logoed items, holding events, seminars or a conference or holding a trade show. If the sales don't relate directly to the organization's purpose, this is known as unrelated business income and is taxable. Unrelated business income is often a major financial objective of organizations with low dues and contributions. Dues are considered related business income. Advertising revenue that covers the cost of an educational publication is related business income, while profits from ads might be considered unrelated and taxable income.

- **Endowment**

Not all of the money a charity raises goes toward administration or service. Many not-for-profit have an economic objective of creating an endowment, which is a financial account that generates enough interest each year to fund charitable activities. Some not-for-profit set an objective of a dollar amount for their endowment, such as creating a GH¢1 million endowment. Once the fund is fully endowed, the organization sets an annual spending objective for the interest earned.

- **Welfare of the society**

Social objective are those objectives of business, which are desired to be achieved for the benefit of the society. Since business operates in a society by utilizing its scarce resources, the society expects something in return for its welfare. No activity of the business should be aimed at giving any kind of trouble to the society.

If business activities lead to socially harmful effects, there is bound to be public reaction against the business sooner or later. Social objectives of business include production and supply of quality goods and services, adoption of fair trade practices and contribution to the general welfare of society and provision of welfare amenities.

(Any 4 points well explained for 4 marks)

**b)**

i) **Over the counter market (OTC)**

A decentralized market, without a central physical location, where market participants trade with one another through various communication modes such as the telephone, email, and proprietary electronic trading systems. An over-the-counter (OTC) market and an exchange market are the two basic ways of organizing financial markets. In an OTC market, dealers act as market-makers by quoting prices at which they will buy and sell a security, currency, or other financial products. A trade can be executed between two participants in an OTC market without others being aware of the price at which the transaction was completed. In general, OTC markets are typically less transparent than exchanges and are also subject to fewer regulations.

(2 marks)

ii) **Dealers market**

A dealer market is a financial market mechanism wherein multiple dealers post prices at which they will buy or sell a specific security of instrument. In a dealer market, a dealer – who is designated as a “market maker” – provides liquidity and transparency by electronically displaying the prices at which it is willing to make a market in a security, indicating both the price at which it will buy the security (the “bid” price) and the price at which it will sell the security (the “offer” price). Bonds and foreign exchange trade primarily in dealer markets.

(2 marks)

iii) **Auction market**

In an auction market, buyers enter competitive bids and sellers enter competitive offers at the same time. The price at which a stock is traded represents the highest price that a buyer is willing to pay and the lowest price that a seller is willing to accept. Matching bids and offers are then paired together, and the orders are executed. The New York Stock Exchange (NYSE) is an example of an auction market.

(2 marks)

c) **The roles played by the financial managers are:**

- **Raising of Funds**

In order to meet the obligation of the business it is important to have enough cash and liquidity. A firm can raise funds by the way of equity and debt. It is the responsibility of a financial manager to decide the ratio between debt and equity. It is important to maintain a good balance between equity and debt.

- **Allocation of Funds**

Once the funds are raised through different channels the next important function is to allocate the funds. The funds should be allocated in such a manner that they are optimally used. In order to allocate funds in the best possible manner the following point must be considered

- ✓ The size of the firm and its growth capability
- ✓ Status of assets whether they are long-term or short-term
- ✓ Mode by which the funds are raised

These financial decisions directly and indirectly influence other managerial activities. Hence formation of a good asset mix and proper allocation of funds is one of the most important activity

- **Profit Planning**

Profit earning is one of the prime functions of any business organization. Profit earning is important for survival and sustenance of any organization. Profit planning refers to proper usage of the profit generated by the firm.

Profit arises due to many factors such as pricing, industry competition, state of the economy, mechanism of demand and supply, cost and output. A healthy mix of variable and fixed factors of production can lead to an increase in the profitability of the firm.

Fixed costs are incurred by the use of fixed factors of production such as land and machinery. In order to maintain a tandem it is important to continuously value the depreciation cost of fixed cost of production. An opportunity cost must be calculated in order to replace those factors of production which has gone through wear and tear. If this is not noted then these fixed cost can cause huge fluctuations in profit.



- **Understanding Capital Markets**

Shares of a company are traded on stock exchange and there is a continuous sale and purchase of securities. Hence a clear understanding of capital market is an important function of a financial manager. When securities are traded on stock market there involves a huge amount of risk involved. Therefore a financial manager understands and calculates the risk involved in this trading of shares and debentures.

It's on the discretion of a financial manager as to how to distribute the profits. Many investors do not like the firm to distribute the profits amongst shareholders as dividend instead invest in the business itself to enhance growth. The practices of a financial manager directly impact the operation in capital market.

- **Cash management (Working Capital Management)**

Cash Management is an important aspect of your business because it provides you with a process of monitoring, analyzing and adjusting the cash flow of your business which will enhance liquidity and profits while also reducing risk.

- **Risk Management**

The role of a Finance Manager is to communicate risk policies and processes for an organisation. They provide hands-on development of risk models involving market, credit and operational risk, assure controls are operating effectively, and provide research and analytical support.

(4 points well explained @ 2.5 marks = 10 marks)

(Total: 20 marks)

## QUESTION TWO

a)

- i) **Riba** in Islamic Finance refers to any predetermined interest charged by the lender to a borrower which the lender receives above the capital amount granted by the lender whether the borrower makes money or not the interest is paid at the predetermined level. This is absolutely forbidden in Islam. (2 marks)

ii) **There are three perspectives from which Riba can be viewed as Unacceptable or forbidden.**

- **Borrowers perspective**

With the borrower, it becomes unfair when the borrower struggles to raise the requisite revenue and finance to pay for the interest when the profit generated is

less than the predetermined interest cost. This can stress the cash flow and finance of the borrower but pass on undue benefit to the lender, which is considered unfair in Islamic law.

- **Lenders perspective**

The unfairness nature of Riba to the lender emanates from the lower real value of what the lender receives during an inflationary period or environment. This will often generate returns, which is less than or below inflation making the lender lose on real return basis but to the benefit of the borrower.

- **From the economy's perspective**

This can generate or lead to inefficient allocation of resources in the economy and contribute to instability. Capital will flow to the most credit worthy customers, which might be the areas rather than the areas that will make the most use of resources or capital.

(3 points well explained for 3 marks)

b)

i) **Market price per share**

Dividend per share (DPS) = 50% X 1.6 = 0.8

$D_0 = 0.8$  ,  $g = 5\%$  and  $r = 15\%$

$$\text{Price} = \frac{D_0 (1+g)}{r - g} = \frac{0.8 (1.05)}{0.15 - 0.05} = \frac{0.84}{0.10} = 8.4 \text{ cedis}$$

(2 marks)

ii) **Market capitalization** = price per share x issued shares  
 $= 8.4 \times 6\text{m shares}$   
 $= 50.4\text{m cedis}$

(2 marks)

iii) **Rights issue price** @ 10% discount of the current market price = 90% x 8.4 = 7.56 cedis

(2 marks)

iv) **The theoretical ex-right price**

$$\begin{array}{rcl} = & 3 \text{ shares @ } 8.4 & = 25.2 \\ & 1 \text{ share @ } 7.56 & = 7.56 \\ & \hline & 4 \text{ shares} & 32.76 \\ & \hline & = 32.76 / 4 & = 8.19 \text{ per share} \end{array}$$

(2 marks)

v) **Market capitalization at the right issue:**

Cash raised or cash proceeds from the issue = 6 million shares / 3 = 2 million shares  
 = 2 million shares x 7.56 = 15.12 million cedis

Value before the right issue = 6 million shares x 8.4 = 50.4 million

Cash raised from right issue = 15.12 million

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 65.52 million

Less issue cost

0.6 million

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**64.92 million**  
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(2 marks)

c) **KAF Electronics Ltd (KAF)**

- i) The project 1 falls within KAF's existing line of business, and so would not present different level of business risk. Besides, it would not affect the company's financial risk as it would be financed with existing capital. Therefore, the appropriate discount rate for appraising this project is the company's existing WACC, which is 26.52%:

$$WACC = \frac{V_e}{\text{Total value}} \times k_e + \frac{V_d}{\text{Total value}} \times k_{dt}$$

$$WACC = \frac{GH\text{¢}25.5m}{GH\text{¢}37.5m} \times 33.5\% + \frac{GH\text{¢}12m}{GH\text{¢}37.5m} \times 11.7\% = 26.52\%$$

$V_e = 10m \times GH\text{¢}2.55 = GH\text{¢}25.5m$

$V_d = GH\text{¢}12m$

Total value =  $GH\text{¢}25.5m + GH\text{¢}12m = GH\text{¢}37.5m$

Cost of equity:

$$k_e = r_f + \beta(r_m - r_f)$$

$$k_e = 12.5\% + 2.1(10\%) = 33.5\%$$

After-tax cost of debt:

Interest on debt =  $18\% \times GH\text{¢}10m = GH\text{¢}1.8m$

$$k_{dt} = \frac{\text{Interest}(1 - t)}{\text{Market value ex int}}$$

$$k_{dt} = \frac{GH\text{¢}1.8m (1 - 0.22)}{GH\text{¢}12m} = 0.117$$

(Marks allocation:  $k_e = 1.5$  marks;  $k_{dt} = 1.5$  marks; WACC = 2 marks)  
 (5 marks)

- ii) As the Project 2 would be financed with existing capital, it would not affect the company's financial risk. However, it may present different business risk as it is a

different line of business. Therefore, the company's existing WACC would not be an appropriate discount rate for appraising it. A new project-specific cost of capital that reflects the risk associated with the project should be used.

The cost of equity would be affected by the different business risk inherent in the furniture manufacturing business. The new cost of equity is computed as under:

First, ungear the average equity beta in the Furniture Manufacturing Industry using the average industry capital structure to obtain the asset beta for that industry:

$$\beta_a = \frac{V_e}{V_e + V_d(1 - t)} \times \beta_e$$

$$\beta_a = \frac{60}{60 + 40(1 - 0.22)} \times 1.52 = 1.00$$

Second, re-gear the asset beta from the Furniture Manufacturing Industry to obtain an equity beta that reflects the financial risk of the company:

$$\beta_e = \frac{V_e + V_d(1 - t)}{V_e} \times \beta_a$$

$$\beta_e = \frac{25.5 + 12(1 - 0.22)}{25.5} \times 1.00 = 1.367$$

Third, put geared (equity) beta into the CAPM to obtain the appropriate cost of equity:

$$k_e = r_f + \beta(r_m - r_f)$$

$$k_e = 12.5\% + 1.367(10\%) = 26.17\%$$

The risk-adjusted WACC is computed as under:

$$WACC = \frac{\text{GH¢}25.5\text{m}}{\text{GH¢}37.5\text{m}} \times 26.17\% + \frac{\text{GH¢}12\text{m}}{\text{GH¢}37.5\text{m}} \times 11.7\% = 21.5\%$$

**(Marks allocation: asset beta = 1.5 marks; new equity beta = 1.5 marks; new  $k_e$  = 1 mark; risk-adjusted WACC = 1 mark)**  
**(5 marks)**

**(Total: 25 marks)**

### QUESTION THREE

a)

#### i) Calculation of Net Present Values

GH¢					
Year	0	1	2	3	4
Sales revenue		728,000	1,146,390	1,687,500	842,400
Variable costs		-441,000	-701,190	-1,041,750	-524,880
<b>Contribution</b>		287,000	445,200	645,750	317,520
Capital allowances		-250,000	-250,000	-250,000	-250,000
Taxable profit		37,000	195,200	395,750	67,520
Tax @ 25%		9,250	48,800	98,938	16,880
After tax profit		27,750	146,400	296,813	50,640
Capital allowances		250,000	250,000	250,000	250,000
<b>After tax cash flows</b>		<b>277,750</b>	<b>396,400</b>	<b>546,813</b>	<b>300,640</b>
Initial Investment	-1,000,000				
Working capital	-50,960	-29,287	-37,878	59,157	58,968
Net cash flows	-1,050,960	248,463	358,522	605,970	359,608
Discount factor @ 12%	<u>1</u>	<u>0.893</u>	<u>0.797</u>	<u>0.712</u>	<u>0.636</u>
Present values	<u>-1,050,960</u>	<u>221,842</u>	<u>285,812</u>	<u>431,317</u>	<u>228,537</u>
<b>NPV</b>	<b>116,548</b>				

<b>Workings</b>				
Sales revenue				
Year	1	2	3	4
Selling price (GH¢/unit)	20.8	21.63	22.50	23.40
Sales volume (units)	35,000	53,000	75,000	36,000
Sales revenue (GH¢)	728,000	1,146,390	1,687,500	842,400
Variable costs				
Variable costs (GH¢/unit)	12.60	13.23	13.89	14.58
Sales volume (units)	35,000	53,000	75,000	36,000
Variable costs (GH¢)	441,000	701,190	1,041,750	524,880
Working capital				
Year 0 investment = 728,000 x 0.07 = 50,960				
Year 1 investment = 1,146,390 x 0.07 = 80,247				
Year 2 investment = 1,687,500 x 0.07 = 118,125				
Year 3 investment = 842,400 x 0.07 = 58,968				
Incremental investment in working capital				
Year 0 investment = 728,000 x 0.07 = 50,960				
Year 1 investment = 80,247 - 50,960 = 29,287				
Year 2 investment = 118,125 - 80,247 = 37,878				
Year 3 recovery = 58,968 - 118,125 = 59,175				
Year 4 recovery = 58,968				

(13 marks evenly spread using ticks)

ii) The project is therefore profitable and must be implemented. (2 marks)

b)

i) **Reasons why interest rates on loans may differ for different maturities as explained by the term structure of interest rate include the following:**

- **Liquidity preference theory:** There seems to be a mismatch between the loan terms that lenders are ready to provide and the loan terms that borrowers demand. In general, lenders prefer giving short-term loans whereas borrowers prefer long-term loans. The liquidity preference theory explains that since lenders prefer short-term loans to long-term loans, they will offer short-term loans at lower rate but long-term loans at higher rates.
- **Expectations theory:** The yield curve depends on expected future inflation. Normally, average expected rate of inflation increases over time. Therefore, loans with longer terms are expected to provide higher inflation premium, which implies a higher interest rate, whilst loans with shorter terms may provide lower inflation premium, which implies a lower interest rate.
- **The market segmentation theory:** The market for funds can be segmented into two: the market for short-term funds and the market for long-term funds. According to the market segmentation theory, the yield curve could be upward sloping, flat, or downward sloping depending on the supply and demand conditions in each market. For instance, if during a period, there are fewer lenders willing to offer long-term loans but more borrowers demanding long-term loans, there will be shortage of funds in the market for long-term funds and excess fund in the market for short-term funds. Consequently, rates on long-term loans will be higher than rates on short-term loans, and the yield curve will be upward sloping.
- **Government policy:** Actions of the central bank in relation to management of interest rate may affect the yield on debt stocks of different maturities.

(Marks allocation: 2 marks for each of 3 reasons = 6 marks)

ii) **Ways of hedging the company's exposure to interest rate risk include the following:**

- **Matching:** The company would match assets and liabilities with common interest rates. That is, if an investment will yield constant payoffs then it should be financed with a loan with fixed interest rate and vice versa.
- **Smoothing:** The company would keep a balance between its fixed rate borrowing and floating rate borrowing.
- **Forward rate agreement:** The company would hedge its exposure to interest rate risk by fixing the interest rate on future short-term borrowing. This is done through an over-the-counter arrangement with a bank.
- **Interest rate futures:** The company would speculate on the movement of interest rate by buying/selling standardized contracts to lend/borrow at a futures rate.

- **Interest rate option:** The company would buy an option to obtain the right to borrow at a predetermined strike interest rate. This would allow the company to limit adverse interest rate movements while taking advantage of favourable interest movements.
- **Interest rate swap:** The company would agree to exchange interest rate payments with a counter party.

(Marks allocation: 1 mark for each of 4 strategies = 4 marks)

(Total: 25 marks)

#### QUESTION FOUR

a)

	Before GH¢	After GH¢
Cash	1,000,000	1,500,000
Debtors	4,000,000	3,000,000
Inventory	<u>6,000,000</u>	<u>5,000,000</u>
	11,000,000	9,500,000
Less creditors	<u>4,000,000</u>	<u>5,000,000</u>
Net working capital	7,000,000	4,500,000

(5 marks)

Cost of capital @ 20%	Before	After
	1,400,000	900,000

- b) Savings =  $1,400,000 - 900,000$   
=GH¢500,000

Management should therefore change the existing policy as that will give the company savings of GH¢500,000

(3 marks)

c) **Importance of the cash conversion cycle in ascertaining the working capital needs of the company**

- A Cash conversion cycle is the sum of stock or inventory days and trade debtors or receivables days less the trade creditors or payables days. eg. if stocks days is 60 days and debtor days is 30 and creditor days is 40 days then the cash cycles days will be =  $60 + 30 - 40 = 50$  days.
- Investment in working capital requires financing which comes at a great cost to the business. The longer the cash cycle the bigger the financing requirement and hence the cost and vice versa.

- Any management strategy that will reduce the cash cycle to the barest minimum will reduce the working capital locked up and its associated cost. This will have a positive impact on the profits and vice versa.

(Any 2 points @ 2 marks each =4 marks)

**d) Advantages to be derived from effective management of Accounts Receivable. Good receivables management is a comprehensive process which helps the company in:**

- Determining the customer's credit rating in advance
- Frequently scanning and monitoring customers for credit risks
- Maintaining customer relations
- Detecting late payments in due time
- Detecting complaints in due time
- Reducing the total balance outstanding (DSO)
- Preventing any bad debt in receivables outstanding

(Any 3 points for 3 marks)

(Total: 15 marks)

## QUESTION FIVE

a)

- **Earnings**

Average earnings over the last five years have been GH¢ 53,760 and over the last four years 57,200. There might appear to be some growth prospects, but estimates of future earnings are uncertain.

A low estimate of earnings in 2018 would be perhaps GH¢ 57,200. A high estimate of earnings might be GH¢60,000 or more.

(4.5 marks)

- **P/E ratio**

A P/E ratio of 15 (Beans) would be much too high for Donc Ltd, because the growth of Donc Ltd earnings is not as certain, and Donc. Ltd is an unquoted company.

On the other hand, Donc Ltd's expectations of earnings are probably better than those of Wash Ltd. A suitable P/E ratio might be based on the industry's average, 10; but since Donc Ltd is appropriate: perhaps 60% to 70% of 10= 6 or 7, or conceivably even as low as 50% of 10=5.

The valuation of Donc Ltd shares might therefore range between:

High P/E ratio and high earnings:  $7 \times \text{GH¢ } 75,000 = \text{GH¢ } 525,000$ ; and

Low P/E ratio and low earnings:  $5 \times \text{GH¢ } 71,500 = \text{GH¢ } 357,500$ .

(4.5 marks)



- b) You need to use the cost of debt as the discount rate, and remember to use an annuity factor for the interest. We are discounting over 14 periods (quarters) using the quarterly discount rate ( $8\%/4$ )

Period		Cash flow	Discount factor	Present value
		GH¢	2%	GH¢
1-14	Interest $((0.12 \times 150,000)/4)$	4,500	12.11	54,495
14	Redemption	165,000	0.758	125,070
				<b>179,565</b>

**Market value is GH¢179,565**

**(6 marks)**

**(Total: 15 marks)**