MARCH 2026 PROFESSIONAL EXAMINATIONS
FINANCIAL MANAGEMENT (PAPER 2.4)
CHIEF EXAMINER'S REPORT, QUESTIONS AND MARKING SCHEME

STANDARD OF PAPER

The Financial Management paper was of the quality expected at that level. It was also observed that the distribution of questions and marks allocation were generally commensurate with the required level of distribution expected across the syllabus. At the individual questions level, it was observed that they were of high quality, straightforward and unambiguous, making it easy to comprehend. They were further noted to contain sub questions with wide spread across the syllabus thereby affording candidates the opportunity to be able to provide wide scope of answers for good marks

PERFORMANCES OF CANDIDATES

The overall performance was good with almost half of the candidates who sat for the paper obtaining a pass mark or better. The overall performance of the candidates was driven by good pass rate across the questions with candidates obtaining pass rate between 56% and 64% in three questions and 46% in one question. It was only question 4 that produced a poor pass rate of 17% contributing partially to the drop in the overall pass rate from the previous sitting.

NOTABLE STRENTHGS AND PERFORMANCE OF CANDIDATES

The following strengths were observed:

- Better appreciation of the requirements of the questions.
- Improvement in ability to think outside the box to provide wide array of unique answers to the questions.
- Improvement in providing appropriate answers in line with requirements of the questions and the level of marks allocated to minimise overwriting.

Observed weaknesses demonstrated by candidates:

- Some candidates' misunderstanding of the questions and what was expected still persist.
- Inability of some candidates to provide good answers for the quantitative aspect of the paper still persist.
- Exhibition of ignorance on some subject areas of the paper with responses far off basic financial management knowledge which suggest guess responses which are far off the required answers.
- Poor arrangement of answers to each question spread across different pages far part each other making it difficult to trace and mark.

QUESTION ONE

a) A Ghanaian agribusiness company faces a GH¢4 million working capital shortfall due to COCOBOD's 90-day payment cycle. It is therefore seeking various options for meeting this shortfall.

Options for financing the requirement include:

- Invoice discounting: 85% advance by an invoice discounter at a charge of 2.5% monthly compounded.
- Bank overdraft: 32% interest, commitment fee: 1.5%.
- Supply chain finance: Buyer (Multinational) guarantees payment at 28% cost.

Required:

i) Compute the ***effective annual cost*** of each option and recommend the most cost-effective solution. **(10 marks)**

ii) Explain **TWO** advantages each of ***collateral registry system*** and ***credit referencing system***. **(5 marks)**

b) In July 2025, the Bank of Ghana's Monetary Policy Committee (MPC) delivered a 300 basis-point policy rate cut, thereby reducing the monetary policy rate from 28% (as at May 2025) to 25%. This followed inflation easing to 13.7% in June 2025, down from 18.4% in May 2025. Ghanaian manufacturing firms typically rely on short-term bank borrowing in financing their businesses.

Required:

Explain **THREE** advantages of this policy rate cut to manufacturing firms in Ghana. **(5 marks)**

(Total: 20 marks)

QUESTION TWO

Muduro LTD is a pharmaceutical manufacturing company that needs to increase its production capacity to meet the rising demand for one of its existing drugs, "Afasie", which is widely used as an active ingredient in the treatment of digestive disorders. To achieve this, the company is considering acquiring a new production machine with a useful life of four years and a maximum output of 600,000 kilograms of Afasie per year. The machine will cost GH¢800,000, payable immediately, and is expected to have a residual (scrap) value of GH¢30,000 at the end of the fourth year.

Forecast demand and production for Afasie over the next four years are as follows:

Year	**Demand (kg)**
1	1.4 million
2	1.5 million
3	1.6 million
4	1.7 million

Existing production capacity for Afasie is limited to one million kilograms per year and the new machine would only be used to meet demand in excess of this capacity.

The current selling price of Afasie is GH¢8.00 per kilogram. The variable cost of materials is GH¢5.00 per kilogram and other variable production costs are GH¢1.90 per kilogram.

Fixed costs of production associated with the new machine would be GH¢240,000 in the first year of production, increasing by GH¢20,000 per year in each subsequent year of operation.

Muduro LTD pays corporate tax one year in arrears at an annual rate of 30% and can claim tax-allowable depreciation on a 25% reducing balance basis. A balancing allowance is claimed in the final year of operation.

Muduro LTD uses its after-tax weighted average cost of capital to appraise investment projects. It has a cost of equity of 11% and a before-tax cost of debt of 8.6%. The long-term finance of the company, on a market-value basis, consists of 80% equity and 20% debt.

Required:

a) Determine the weighted average cost of capital for Muduro LTD. **(2 marks)**

b) Calculate the Net Present Value of investing in the new machine and advise Muduro LTD on whether the investment is financially acceptable. **(13 marks)**

c) Differentiate between ***risk*** and ***uncertainty*** in the context of investment appraisal. **(2 marks)**

d) Explain the usefulness of sensitivity analysis in the investment appraisal process. **(3 marks)**

(Total: 20 marks)

QUESTION THREE

a) Akooshi Manufacturing LTD is worried about rising interest rates. The company plans to borrow GH¢10 million in 3 months' time for a 6-month term to finance a new project. The Finance Manager expects that by the time they take the loan, short-term interest rates might have increased substantially from current levels. The bank offers an FRA (Forward Rate Agreement): a 3×9 FRA at 15% (annualised). Current 6-month interest rates are 14% p.a., but the company fears rates could rise above 18% p.a. in three months' time.

Required:

i) Calculate the ***effective interest rate*** the company would end up paying on the GH¢10 million loan in 3 months if the actual 6-month interest rate turns out to be

- 18% p.a.
- 14% p.a.

(Show the payoff from the FRA in each case). **(6 marks)**

ii) Discuss ***one advantage*** and ***one disadvantage*** of using an FRA versus doing nothing. **(4 marks)**

b) The Chief Executive Officer (CEO) of a Ghanaian state-owned research institute is considering a proposal to dispose of some pieces of laboratory equipment, including microscopes, centrifuges and a biochemistry analyser, which the institute replaced two years ago with higher-capacity units to meet growing demands and has not been used since the replacement. The CEO believes those pieces of equipment can be sold to raise funds to support the institute's maintenance budget.

Required:

i) Explain the meaning of the following classes of government assets that can be disposed of according to the Public Procurement Act and identify the class to which the pieces of laboratory equipment to be disposed of belong.

- Unserviceable items
- Obsolete items
- Surplus items

(6 marks)

ii) Explain to the CEO the **TWO** modes of disposal by sale permitted by the Public Procurement Act. **(4 marks)**

(Total: 20 marks)

QUESTION FOUR

a) Waraba LTD, an Accra-based IT solutions company, is expanding into foreign markets. It will require additional financing and technical capabilities, which the company currently lacks.

The founders are therefore prepared to cede a 40% equity stake in the company to a strategic investor who can bring in the necessary capital and expertise to compete in a broader international environment. However, they are uncertain about the range of acceptable prices for the shares they are willing to give up.

Below is a summary of financial data for Waraba LTD for the most recent financial year:

Issued shares	2 million
	GH¢'000
After-tax profit	9,600
Total dividends	1,920
Property, Plant and Equipment	50,500
Current assets	25,300
Long term borrowings	9,100
Current liabilities	11,100

Additional relevant information:

1) The company's assets were revalued shortly after the financial statements were published. As part of the revaluation:

- Inventories and trade receivables, included in current assets, were written down by GH¢80,000 and GH¢95,000, respectively.
- Property, Plant and Equipment were valued at GH¢52,400,000.

2) Waraba LTD operates in the technology solutions industry. The average P/E ratio for listed equity stocks in the sector is 10 which Waraba LTD is expected to discount by 50%. The average required return on listed equity stocks in the industry is 16%.

3) As Waraba LTD is a privately held company, its shares are not listed on a stock exchange. Investors, therefore, require a marketability risk premium of 7% above the industry average return to invest in the company's equity stock.

4) Waraba's earnings and dividends are expected to grow by 5% annually in perpetuity.

Required:

i) Estimate an appropriate required rate of return on the equity stock of Waraba LTD.

(3 marks)

ii) Estimate a range of suitable considerations for 40% stake in Waraba LTD using the following methods:

- Net Assets Method.
- P/E Ratio Method.
- Dividend Valuation Method.

(12 marks)

b) Hedging interest rate risk is crucial for business entities. Forward rate agreements and interest rate futures are both used to manage interest rate risk. They are designed to lock in a borrowing or lending rate risk at a minimal level, but they work differently.

Required:
Discuss **TWO** advantages of hedging interest rate risk with a forward rate agreement instead of interest rate futures. **(5 marks)**

(Total: 20 marks)

QUESTION FIVE

a) Walewale LTD has a cash conversion cycle of about 60 days. The company's finance team is exploring ways to free up cash and improve working capital efficiency.

They have identified three potential changes in policy:

i) Reduce the average inventory holding period by 10 days through better inventory management techniques.
ii) Speed up accounts receivable collection by 5 days via stricter credit control or incentives for faster payment.
iii) Extend the accounts payable period by 10 days by negotiating longer terms with suppliers, without incurring late payment fees or harming relationships.

Annual credit sales are GH¢5,000,000 and annual cost of sales is GH¢3,000,000 (all purchases on credit). Assume 360 days in a year. Currently, inventory days are 60, receivables days 30, and payables days 30.

Required:
Calculate the impact of each proposed change on Walewale LTD's cash conversion cycle and estimate the one-time cash amount that would be freed up or additionally required by each change, taken independently. Express the cash flow impact in GH¢. **(8 marks)**

b) Potsin LTD is attempting to minimise its inventory costs. The company uses 50,000 units of a certain component each year (daily usage is steady). The ordering cost is GH¢200 per order. The holding cost is estimated at GH¢10 per unit per year. The supplier's price per unit is GH¢5.

Required:

i) Calculate the Economic Order Quantity (EOQ) for this component and the associated total annual ordering and holding cost. **(3 marks)**
ii) The supplier has offered Potsin LTD a 2% discount on the purchase price if the company orders 3,000 units at a time. Determine whether Potsin LTD should accept the discount offer. **(4 marks)**

c) Ghana has firmly established itself as a continental leader in digital finance, recording 350 million transactions in a single quarter in 2025. This volume of transactions was driven by widespread adoption of mobile money services, the proliferation of fintech solutions and increasing comfort with digital channels.

Assume you are a finance manager of a medium-sized Ghanaian bank considering a GH¢15 million investment in fintech solutions.

Required:
Critically evaluate **TWO** key benefits and **TWO** major challenges of adopting fintech technologies. Provide examples relevant to the Ghanaian banking context. **(5 marks)**

(Total: 20 marks)

SUGGESTED SOLUTION

QUESTION ONE

a)

i) **Cost Calculation & Recommendation**

Invoice discounting
Advance: 85% of GH¢4,000,000 = GH¢3,400,000
Effective Annual Cost (EAC) = $(1+0.025)^{12}-1$=**34.49%**

Bank Overdraft:
Cost = 32% + 1.5% = **33.5%**.

Supply Chain Finance:
Cost = **28%** (lowest).

Recommendation: Supply chain finance (28%) is cheapest and leverages buyer's creditworthiness.

(10 marks)

ii) **Collateral Registry and Credit Referencing – Risk Mitigation**

Advantages of Collateral Registry System
Allows lenders to register security interests in movable assets.
Reduces risk of multiple borrowing against same asset.
Enhances lender confidence in providing credit to SMEs and agribusinesses.
Improves credit governance
Controls borrower's behavior and discipline

(2 relevant point @ 1.25 each = 2.5 marks)

Advantages of Credit Referencing (e.g., XDS Data)
Provides borrower's credit history.
Improves risk assessment and pricing of loans.
Prevents over-indebtedness and improves repayment discipline

(2 relevant point @ 1.25 each each = 2.5 marks)

b) Advantages of policy rate cut to manufacturing firms in Ghana
Lower Cost of Debt Financing – Commercial banks usually adjust lending rates downward in line with the policy rate. Manufacturing firms can therefore borrow at lower interest rates, reducing the weighted average cost of capital (WACC).

Encouragement of Expansionary Investment Decisions – With lower borrowing costs, projects that were previously marginal may now have positive net present values (NPVs), encouraging manufacturing firms to undertake capital expansion, modernisation or product diversification.

Shift in Financing Mix (Debt vs Equity) – A fall in the cost of debt could encourage firms to rely more on debt financing instead of issuing new equity, as debt becomes relatively cheaper, improving financial leverage if managed prudently.

Working Capital Management Improvement – Short-term loans, overdrafts, and trade finance become more affordable, easing liquidity constraints for firms reliant on bank facilities for imports of raw materials and working capital.

(3 relevant points for 5 marks)

(Total: 20 marks)

EXAMINER'S COMMENTS

The (a) part of this question tested the candidates' ability to make the best financing option decision for working capital gap using the annual effective cost for invoice discounting, overdraft and supply chain finance. Additionally, candidates were expected to provide two advantages each of collateral registry system and credit referencing system. This part received good to excellent answers except few candidates who struggled to compute the annual effective cost.

The (b) part expected candidates to apply their knowledge on the impact of Bank of Ghana Monetary policy rate drop on the manufacturing sector in Ghana which also received good answers as students clearly understood the requirements and provided wide array of responses which were generally good.

QUESTION TWO

a) **Weighted average cost of capital**
After-tax weighted average cost of capital = (11 x 0.8) + (8.6 x (1 – 0.3) x 0.2) = 10%

(2 marks)

b)

Year	**1 GH¢'000**	**2 GH¢'000**	**3 GH¢'000**	**4 GH¢'000**	**5 GH¢'000**
Contribution	440	550	660	660	
Fixed costs	(240)	(260)	(280)	(300)	
Taxable cash flow	200	290	380	360	
Taxation		(60)	(87)	(114)	(108)
CA tax benefits		60	45	34	92
Scrap value				30	
After-tax cash flows	200	290	338	310	(16)
Discount at 10%	0.909	0.826	0.751	0.683	0.621
Present values	182	240	254	212	(10)

Present value of benefits GH¢878,000
Less initial investment GH¢800,000
Net present value **GH¢78,000**

The NPV is positive and so the investment is financially acceptable.

Workings

Annual Contribution

Year	**1**	**2**	**3**	**4**
Excess demand (kg/yr)	400,000	500,000	600,000	700,000
New machine output (kg/yr)	400,000	500,000	600,000	600,000
Contribution (GH¢/kg)	1.1	1.1	1.1	1.1
Contribution (GH¢/yr0	440,000	550,000	660,000	660,000

Tax allowable depreciation tax benefits

Year	TA depreciation (GH¢)	Tax benefits (GH¢)
1	(800,000 x 0.25) = 200,000	(200,000 x 0.3) = 60,000
2	(600,000 x 0.25) = 150,000	(150,000 x 0.3) = 45,000
3	(450,000 x 0.25) = 112,500	(112,500 x 0.3) = 33,750
	462,500	
Scrap value	30,000	
	492,500	
Difference	307,500	(307,500 x 0.3) = 92,250
	800,000	

(Marks evenly spread using ticks = 13 marks)

c) *Risk* refers to the situation where probabilities can be assigned to a range of expected outcomes arising from an investment project and the likelihood of each outcome occurring can therefore be quantified.
Uncertainty refers to the situation where probabilities cannot be assigned to expected outcomes.

(2 marks)

d) *Sensitivity analysis* is useful because it directs management attention to the critical variables in the project. These are the variables where a variation in the cash flows by a fairly small amount – and certainty by an amount that might reasonably be expected, given uncertainty about the cash flows – would make the NPV negative and the project not financially viable

(3 marks)

(Total: 20 marks)

EXAMINER'S COMMENTS

Candidates were expected to determine the weighted average cost of capital and make a decision using Net Present Value approach to advise whether a new machine which was to be introduced to augment an existing machine which had production capacity constraint should be invested in or not based on candidates' computations and analysis. This part received good answers across except few candidates who could not identify the relevant cost relating to the new machine and used total production of both the old and the new machine that negatively impacted the marks they scored. Candidates should focus more on identifying relevant cost that should be applied in any computations for decision making.
The (c) and (d) parts of the question which were on risk & uncertainty and sensitivity analysis was generally well understood and well answered.

QUESTION THREE

a)

i) **FRA Analysis for Akooshi Manufacturing LTD**

Loan Amount: GH¢10,000,000

FRA Type: 3×9 FRA (starts in 3 months, covers 6-month period)

FRA Contract Rate: 15% p.a. (annualised)

Loan Period: 6 months = 0.5 years

FRA Payoff **=** $\frac{(\text{Reference rate} - \text{FRA rate}) x\ Loan\ principal\ x\ 180/360}{1+\text{Reference rate x } 180/360}$

At actual 6-month rate of 18 p.a.

Without FRA = GH¢10,000,000 x 0.18 x 0.5 = GH¢900,000

FRA Payoff:

Difference = (0.18-0.15) x GH¢10,000,000 x 0.5

= 0.03 x GH¢10,000,000 x 0.5 = GH¢150,000

Discount for 6 months' actual rate:

Payoff at month 3 = $\frac{150,000}{1+0.18x0.5}$ =$\frac{150,000}{1.09}$ = GH¢137,615

Net interest cost

Pay bank: GH¢900,000

Receive FRA payoff: (GH¢137,615)

Net = GH¢762,385

Effective rate over 6 months = GH¢762,385/ GH¢10,000,000 = 7.62% (15.25% annualised)

At actual 6-month rate of 14 p.a.

Without FRA = GH¢10,000,000 x 0.14 x 0.5 = GH¢700,000

FRA Payoff:

Difference = (0.15-0.14) x GH¢10,000,000 x 0.5

= 0.01 x GH¢10,000,000 x 0.5 = GH¢50,000

Discount for 6 months' actual rate:

Payoff at month 3 = $\frac{50,000}{1+0.14x0.5}$ =$\frac{50,000}{1.07}$ = GH¢46,729

Net interest cost

Pay bank: GH¢700,000

Pay FRA Seller: GH¢46,729

Net = GH¢746,729

Effective rate over 6 months = GH¢746,729/ GH¢10,000,000 = 7.46% (14.93% annualised.

(6 marks)

ii)

Advantage of FRA

Certainty over future borrowing costs — locks in 15% regardless of rate movements, aiding budgeting and eliminating upside risk from rate spikes.

Disadvantage of FRA:

No benefit from favourable rate moves — if rates fall below 15%, Akooshi Manufacturing LTD still effectively pays 15%.

(4 marks)

b)

i) **Explanation of classes of disposable government assets and identification of the class the assets in question belong to**

Obsolete items: Any item of stores, plant, and equipment which is rendered incapable of further effective use by developments in technology, incompatibility with associated items, or where the annual maintenance and breakdown costs can be certified to exceed thirty per cent (30%) of the estimated cost of a new replacement item.

Unserviceable items: Any item of stores, plant and equipment which cannot be used for the intended purpose in its present condition due to major defects or damage, and is beyond economic repair. Classification as beyond economic repair for this purpose shall be determined on the basis that repair costs are certified to cost more than fifty per cent (50%) of the current market price of a new replacement item.

Surplus items: Any item of stores has not moved for a period in excess of two years, or any item of plant or equipment which has remained unused for a period in excess of one year, and where no potential use for the item can be envisaged within the Entity.

The pieces of laboratory equipment can be described as *surplus items*. This is because they had been replaced and had not been in use for about two years because they were of a lower capacity, and not because they were of a major defect, damaged, or incapable of further use.

(6 marks)

ii) **Modes of disposing of government assets by sale**
Disposal of obsolete or surplus items can be conducted by sale in the following modes:

Sale by public tender to the highest tenderer, subject to a reserve price. This mode of disposal must be used for assets whose value is GH¢50 million or higher, unless the asset is older than 10 years. It can also be conducted if the estimated value of the asset or group of assets is sufficient to justify the cost of conducting a public tender.

Sale by public auction, subject to a reserve price. This can be conducted for assets whose value is less than GH¢50 million, or sufficient items can be assembled for the auction to justify the cost of conducting the auction.

(4 marks)

(Total: 20 marks)

EXAMINER'S COMMENTS
The (a) part of Question 3 was on interest rate hedging to mitigate the negative impact of rising interest rate in three months' time. Candidates were therefore tested on their ability to compute and determine the effective interest rate for the loan at 14% and 18% vis-a-vis the hedging rate of 15% and expected to show the payoff computations. This received average to good answers but some candidates struggled to show linkage of the 14% and 18% to the forward rate of the 15% to make a meaningful conclusion.
The other parts of the questions which expected candidates to explain the advantages of taking an interest rate hedge, as well as explain unserviceable items, obsolete & surplus items and modes of disposal by sale under the Public Procurement Act all received good answers.

QUESTION FOUR

a)

i) Appropriate required rate of return of equity stock of Waraba LTD.
The average required rate of return on industry listed stocks is 16%.
With a marketability risk premium of 7 percentage points, the required rate of return on the equity stock of Waraba Ltd should be 23%:
"Appropriate required rate of return on equity = Industry return on equity + Marketability risk premium"
Appropriate required rate of return on equity = 16% + 7% = 23%

(3 marks)

ii) Range of consideration for 40% stake in SofNova Ltd

- **Net assets method:**

	GH¢'000
Property, plant and equipment	52,400
Current assets (25,300 – 80 – 95)	25,125
Total assets	77,525
Long term borrowings	(9,100)
Current liabilities	(11,100)
Net assets	**57,325**

Value per share = $\frac{\text{GH¢57,325}}{2{,}000} = \text{GH¢28.66}$

- **The P/E ratio method**

Using the P/E ratio method, the value per share is estimated as follows:
Value per share = Justified P/E ratio × EPS

The earnings per share (EPS) is GH¢4.8:

$$\text{EPS} = \frac{Profit\ attributable\ to\ ordinary\ shareholders}{Number\ of\ shares} = \frac{\text{GH¢9,600}}{2{,}000} = \text{GH¢4.8}$$

The P/E ratio for the purpose of valuing unlisted company could be one-half or two-thirds of the industry average P/E ratio.
Consider 50% of the industry P/E ratio for the purpose of valuation:
Justified P/E ratio =10 ×0.5 = 5

Value per share = GH¢4.8 × 5 = GH¢24

- **Dividend valuation model**

When dividend will grow at a constant rate, the constant growth DDM can be used to estimate the value of equity as follows

Value per share = $\frac{DPS0(1+g)}{ke-g}$

Recent dividend per share, DPS_0 is GH¢0.96:

$DPS_0 = \frac{GH¢1,920}{2,000} = GH¢0.96$

Required return on equity, Ke= 23% (or the figure the candidate obtained in (a) (i) above)

Growth in dividend, g =5%

Value per share = $\frac{GH¢0.96(1+0.05)}{0.23-0.05} = GH¢5.6$

Range of suitable considerations:

	(x)	(y)	(z)
Method	Value per share	Total equity value	Consideration for 40%
		(x) × 2 million	(y) × 40%
Net assets method	GH¢28.66	GH¢57,320,000	GH¢22,928,000
P/E ratio method	GH¢ 24	GH¢48,000,000	GH¢19,200,000
Dividend valuation method	GH¢5.6	GH¢ 11,200,000	GH¢4,480,000

(12 marks)

b) **Advantages of hedging with an FRA as against interest rate futures**

The advantages of hedging interest rate risk exposure with an FRA instead of an IRF stem from the way the underlying instrument and related transactional arrangements are structured. Below are some key relative advantages of hedging with an FRA:

Tailored Terms: FRAs can be customised to match the exact loan or deposit amount, start date, and maturity date of the underlying exposure, unlike futures, which have standard contract sizes and fixed maturity months.

No Daily Margin Calls: With FRAs, settlement occurs only at maturity based on the interest rate difference, avoiding the daily mark-to-market margin requirements of futures contracts.

Avoidance of Basis Risk: FRAs are directly linked to an agreed reference rate (e.g. LIBOR, Ghana Reference Rate, etc.), which eliminates the mismatch that can occur in futures when the futures rate moves differently from the actual rate.

Exact Notional Principal Match: FRAs allow hedgers to lock in the exact notional amount of their underlying exposure, while futures require dealing with multiples of a standard contract size, which can lead to over- or under-hedging.

Confidentiality: FRA contracts are over-the-counter (OTC) agreements between parties and are not traded on exchanges. Thus, FRAs can provide more privacy compared to exchange-traded futures.

(2 relevant points @ 2.5 each = 5 marks)

(Total: 20 marks)

EXAMINER'S COMMENTS

This question was the worst answered questions contrary to expectation with only 17% of candidates obtaining a pass mark or better. The question was on valuation for 40% stake on takeover case using net assets value, P/E ratio and dividend valuation methods and computing 40% of the outcome for each method and the required rate of return. This consistently has been a challenging area for candidates and more effort should be directed to this area by candidates.

The (b) part expected candidates to explain two advantages of hedging interest rate risk with forward rate agreement instead of interest rate futures. This part was generally well answered.

QUESTION FIVE

a)

Policy change	Baseline metric	New metric	CCC impact (days)	New CCC (days)	One-time cash released (+) / required (–)
Reduce **inventory days** by **10**	Inventory days = **60**	**50**	**–10**	**50**	**+ GH¢83,333.33**
Speed up **receivables** by **5 days**	Receivables days = **30**	**25**	**–5**	**55**	**+ GH¢69,444.44**
Extend **payables** by **10 days**	Payables days = **30**	**40**	**–10**	**50**	**+ GH¢83,333.33**

Baseline: Inventory 60d, Receivables 30d, Payables 30d ⇒ **CCC = 60 + 30 − 30 = 60 days.**
Assume 360-day year; Annual Sales = **GH¢5,000,000**; Annual COGS (all credit purchases) = **GH¢3,000,000.**

- Inventory change (10 days): Daily COGS = 3,000,000/360 = **GH¢8,333.33** ⇒ Cash released = 10 × 8,333.33 = **GH¢83,333.33**.
- Receivables change (5 days): Daily Sales = 5,000,000/360 = **GH¢13,888.89** ⇒ Cash released = 5 × 13,888.89 = **GH¢69,444.44**.
- Payables change (10 days): Daily COGS = **GH¢8,333.33** ⇒ Additional supplier financing = 10 × 8,333.33 = **GH¢83,333.33**

Each of these moves shortens the cash cycle, meaning Walewale LTD gets its cash back more quickly in the business process.

(8 marks)

b)

Demand (D) = 50,000 units per year
Ordering cost (S) = GH¢200 per order
Holding Cost (H) = GH¢10 per order
Unit price (P) = GH¢5

i)

$EOQ = \sqrt{\frac{2DS}{H}} = \sqrt{\frac{2(50{,}000)(200)}{10}} = \sqrt{200{,}000}$ = **1,414 units**

Annual ordering cost: $\frac{D}{Q}S = \frac{50{,}000}{1{,}414.21}$ x 200 = **GH¢7,071.07**

Annual holding cost: $\frac{Q}{2}H = \frac{1{,}414.21}{2}$ x 10 = **GH¢7,071.07**

Total (Ordering + Holding) at EOQ **= GH¢14,142.13**

(3 marks)

ii)

Quantity discount: order 3,000 units (2% discount)
P_d = 5 (1-0.02 = GH¢4.90

Total annual cost comparison (include purchase, ordering, holding):

No discount (order at EOQ with GH¢5 price)
Purchase = 50,000 x 5 = GH¢250,000
Ordering = GH¢7,071.07
Holding = GH¢7,071.07
Total = GH¢264,142.14

Discount Plan (order3,000 with **GH¢4.90 price)**
Purchase = 50,000 x 4.9 = GH¢245,000
Ordering = $\frac{50{,}000}{3{,}000} x\ 200$ = GH¢3,333.33
Holding = $\frac{3{,}000}{2}\ x\ 10$ = GH¢15,000
Total = GH¢263,333.33

Decision: Discount plan reduces total annual cost by GH¢808 so accept the discount and order 3000 units per order.

(4 marks)

c) **Benefits of adopting fintech**

- **Enhanced Operational Efficiency:** Fintech automates processes like account opening and loan processing, reducing manual enables instant e-KYC verification, drastically cutting onboarding time from days to minutes, as seen with some banks in Ghana.

  Reduced Operational Costs: Fintech solutions (cloud computing, automation) lower infrastructure and staffing costs. *Example:* Adopting cloud-based core banking systems eliminates the need for expensive physical server maintenance and reduces IT headcount, significant for medium-sized banks facing high operational costs in Ghana.

  Enhanced Data Analytics & Decision-Making: Fintech enables deep analysis of transaction/behavioural data for better credit scoring, fraud detection, and product design. *Example:* Banks use mobile money payment data (e.g., GHS 1.2 trillion in 2022 transactions) to assess SMEs in the informal sector, enabling profitable lending to previously "unscorable" customers.

  Improved Customer Experience & Reach: Mobile apps, USSD, and digital wallets offer 24/7 access and convenience, attracting unbanked/underbanked populations. *Example:* Banks like Zenith or Stanbic Bank leveraging mobile money interoperability (BoG initiative) allow seamless transfers between bank accounts and mobile wallets, expanding access in rural areas.

Challenges of adopting fintech

Cybersecurity & Fraud Risks: Increased digital surfaces create vulnerabilities for hacking, phishing, and fraud. *Example:* Ghana experienced a rise in cyber fraud targeting digital banking platforms (BoG 2021 report highlighted GH¢90 million+ losses), requiring constant investment in security expertise and systems beyond the initial GH¢15 million.

Regulatory Compliance & Uncertainty.
Navigating evolving BoG regulations (e.g., PSD2-like rules, AML/CFT for digital transactions) is complex and costly. *Example:* Delays or ambiguities in finalizing regulations for specific fintech innovations (e.g., open banking APIs) can stall implementation plans and increase compliance risk for the bank.

Human Capital Gap & Change Management: Shortage of local fintech skills and staff resistance increase costs and delay benefits. *Example:* Difficulty hiring local data scientists for an AI credit system forces expensive expat hires, while loan officers resist algorithms, needing costly retraining and dual systems

Infrastructure Limitations & Digital Divide: Unreliable power/internet and low smartphone penetration outside cities disrupt services and limit reach. *Example:* Banks in regions like the North face high costs for generators/satellite links due to "dumsor" and poor 4G, eroding fintech savings and excluding rural customers.

(2 relevant benefits and two relevant challenges @ 1.25 marks each = 5 marks)

(Total: 20 marks)

EXAMINER'S COMMENTS

Question 5(a) was on working capital management with the candidates tested on their ability to advise on the best option to release or improve working capital by reducing or speeding up inventory days, reducing debtor days or increasing account payable days. This received average to good answers.

The (b) part expected candidates to compute Economic Order Quantity and make a decision as to whether a 2% discount offered should be accepted or rejected which also received good answers.

The (c) part was on fintech and required candidates to explain two advantages and two challenges of Fintech with reference to the banking industry. This was the best answered part of the question.