

**NOVEMBER 2025 PROFESSIONAL EXAMINATIONS
FINANCIAL MANAGEMENT (PAPER 2.4)
CHIEF EXAMINER'S REPORT, QUESTIONS AND MARKING SCHEME**

EXAMINER'S GENERAL COMMENTS

The distribution of the questions was good covering the overall syllabus and the marks allocations to each question appropriately reflected the weighting in the syllabus.

It was noted that the questions at the individual level were also of high standard and appeared straight forward, unambiguous and easy to comprehend. Each question contained sub questions carrying different marks and thereby affording the candidates the opportunity to get questions they could answer or attempt for some marks.

PERFORMANCE OF CANDIDATES

The overall performance of the candidates improved remarkably with the pass rate of 55% compared to 31% in the previous sitting, making it one of the best in recent times.

Additionally, the good performance was generally well spread across most of the questions with candidates having a pass rate of 52%, 58% and 70% in question one, two and five respectively. However, question three recorded a pass rate of 44% with the worst answered being question four at 23% pass rate, thus significantly impacting the overall performance.

NOTABLE STRENGTHS AND WEAKNESSES OF CANDIDATES

The following strengths were observed:

- Good understanding of the requirements of the questions.
- Good time management as candidates answered all questions within the stipulated time.
- Very precise and straight forward answers by most candidates avoiding a lot of unnecessary writing.
- Thorough preparation and revision by some candidates as reflected in the quality of answers.

Observed weaknesses demonstrated by students

- Few candidates misunderstood the questions and what was required.
- Weak capacity in the quantitative aspect of the questions that require further effort.
- Evidence of non-coverage of certain areas of the syllabus as answers clearly showed lack of knowledge and appreciation of those areas by candidates.

Remedies for observed weaknesses

- Students should spend more time in the study of the study texts to have a full understanding of the subject to facilitate good understanding of the questions when asked in the exams.
- Spend more time in the study and practice in the quantitative areas of the syllabus since more than 50% of the questions come from that side based on past trends.
- Candidates should avoid selective specialisation in the syllabus and cover all the areas to have a comprehensive understanding of the subject and boost the chance of passing irrespective of whether the questions are quantitative or essay based.

QUESTION ONE

- a) In 2025, Oobake Energy LTD, a Ghanaian renewable energy firm, is seeking GH¢150 million to finance a 100MW solar power expansion project.

Three financing alternatives are being considered:

Green Bond: A 12-year issue at an 18% coupon rate. Issuance costs are estimated at 2.5% of gross proceeds.

Development Finance Institution (DFI) Loan: Offered at 16% interest, with 2% arrangement fee.

Public-Private Partnership (PPP): Government guarantees 40% of the debt, thereby reducing lenders' required return to 14%.

Corporate tax rate is 25%. Interest cost is tax deductible.

Required:

- i) Calculate the cost of each financing option. **(9 marks)**
- ii) Explain **THREE** macro-economic factors that should be considered in the financing decision. **(6 marks)**

- b) Ghana is promoting sustainable development by encouraging green and responsible financing. Financial incentives are being introduced, while international lenders are placing increasing emphasis on environmental, social, and governance (ESG) standards as conditions for funding. This has implications for long-term investment strategies and the ability to access affordable capital from both domestic and foreign investors.

Required:

Explain **FOUR** benefits companies in Ghana derive from being ESG compliant.

(5 marks)

(Total: 20 marks)

QUESTION TWO

Agbavi Solutions, a Ghana-based software development and IT services company, has experienced tighter capital constraints over the past year due to lower profits and higher costs of external financing. Moreover, shareholders have pressed for higher dividends, limiting the company's ability to channel earnings into growth initiatives.

After an inconclusive meeting, the Directors of the company scheduled another meeting to approve the company's capital projects budget for implementation in the upcoming financial year. During the previous meeting, the Directors reflected on the need to meet shareholders' dividend expectations while allocating sufficient capital to strategic investments in the coming year and agreed to cap the capital investments budget for the coming year at GH¢300 million, comprising a maximum of profit reinvestment of GH¢120 million and a new bank loan of GH¢180 million. The Directors will approve the projects that should be implemented in the coming period, subject to the capital constraint at the next meeting.

The table below presents the financial appraisal results of six independent projects that will be tabled for board approval at the upcoming meeting:

Project	Investment Requirement (GH¢' million)	Net Present Value (GH¢' million)
A	125	250
B	75	225
C	45	175
D	60	100
E	170	128
F	25	10

Required:

- Assuming the projects are divisible, recommend the portfolio of projects that should be funded in the coming year. **(8 marks)**
- Assuming the projects are indivisible, recommend the portfolio of projects that should be funded in the coming year. **(7 marks)**
- Suppose the bank grants the loan to Agbavi Solutions at an annual nominal interest rate of 25% and requires repayment of the loan with the interest in monthly equal instalments over five years. Compute the size of each monthly instalment. **(5 marks)**

(Total: 20 marks)

QUESTION THREE

- a) Petransa Pharmaceuticals LTD (Petransa) is a Ghana-based pharmaceutical company involved in the production of vaccines and medical research. Due to the capital-intensive nature of its operations, the company regularly engages in large-scale borrowing and investment in short-term money markets. To manage exposure to interest rate volatility, the company uses derivative instruments such as interest rate futures and options. Currently, Petransa is facing several financing and investment scenarios and is evaluating how best to hedge against potential changes in interest rates.

Three-month euro interest rate futures are available on a derivative exchange. Available delivery months for the future are March, June, September and December and the contract size for the future is GH¢2,000,000.

Required:

In each of the following situations, justify whether you will use futures or options to hedge against risk:

- i) Petransa plans to take out a GH¢6,000,000 loan for 6 months starting in June to fund working capital for a new clinical trial venture. **(3 marks)**
 - ii) Petransa has submitted a tender for a major government vaccine supply contract. If awarded, the company will need to borrow GH¢24,000,000 for three months starting in September to cover initial manufacturing and distribution costs. **(3 marks)**
 - iii) It is the month of June, and Petransa has GH¢14,000,000 on deposit with a bank for one year at 3-month money market rates. The company is now concerned that money market interest rates may fall significantly in the near future. **(4 marks)**
- b) Taama-Kpanli Products LTD (Taama-Kpanli), a Ghana-based producer and exporter of premium shea butter cosmetic products, has secured a new contract to supply its organic skincare range to Clarra Cosmetics Co., a natural beauty retail chain in Canada. The contract is valued at US\$2.5 million.

This transaction is Taama-Kpanli's first direct business engagement with Clarra Cosmetics and the Canadian market. The company's management considers this deal a significant step in the company's international expansion strategy. However, they are mindful of the potential adverse effects of the volatility of the Ghanaian cedi against major foreign currencies that will be the settlement currency for its international sales.

Required:

Advise Taama-Kpanli's management on **TWO** international trade payment methods they may adopt for the settlement of the company's international sales. **(5 marks)**

- c) Many businesses in Ghana are undergoing rapid digital transformation increasingly leveraging artificial intelligence (AI), blockchain and big data analytics to enhance service delivery. These innovations are reshaping financial management practices.

Required:

Illustrate **FOUR** ways by which current trends affect financial management decisions. **(5 marks)**

(Total: 20 marks)

QUESTION FOUR

- a) Daspharma PLC (Daspharma) is a listed healthcare company operating on the Ghana Stock Exchange. Over the past two years, the company has struggled to maintain profitability due to challenging economic conditions and increased operational costs in its home country. As a result, it has suspended dividend payments in the current year. However, with visible signs of economic recovery and improving healthcare sector performance, Daspharma is optimistic about resuming dividend payments in the near future. Forecast financial information relating to the company is as follows:

Year	1	2	3
Earnings(GH¢'000)	3,000	3,600	4,300
Dividends (GH¢'000)	nil	500	1,000

The company is optimistic that earnings and dividends will increase after Year 3 at a constant annual rate of 3% per year. Daspharma's current capital structure (based on market values) comprises 75% equity and 25% debt. The company's before-tax cost of debt is 5%, and its equity beta is 1.6.

In the past two years, Daspharma has actively worked to reduce its debt levels in order to strengthen its financial position. Since there are now clear signs of economic recovery, the company now plans to raise additional debt in order to modernise its medical equipment and digital infrastructure, supporting its expected growth in earnings.

Following this proposed capital restructuring, Daspharma's capital structure would shift to 60% equity and 40% debt, on a market value basis. This would cause the before-tax cost of debt to rise to 6%, and the equity beta to increase to 2 due to the higher financial risk.

The risk-free rate of return is 4% per year, and the market risk premium is 5% per year. In order to stimulate economic activity, the government has reduced profit tax rate for all listed companies to 20% per year.

The current average price/earnings ratio of listed companies similar to Daspharma is 5.

Required:

- Estimate the value of Daspharma using the price/earnings ratio method. **(3 marks)**
- Calculate the current cost of equity of Daspharma and using this rate, estimate the value of the company using the dividend valuation model. **(6 marks)**
- Calculate the current weighted average after-tax cost of capital (WACC) of Daspharma and WACC after the proposed increase in debt financing and comment on the difference between the two values. **(6 marks)**

- b) The Government of Ghana is considering two options to finance a major highway project.

Under **Option 1 (Traditional Procurement)**, the government would borrow and spend GH¢100 million immediately on construction, and then incur maintenance costs of GH¢2 million at the end of each year for the next 10 years.

Under **Option 2 (Public–Private Partnership)**, a private consortium will finance, build, and maintain the highway, and the government will make annual payments of GH¢15 million for 10 years (starting one year after completion) under a service concession arrangement. Assume the government's cost of capital (discount rate) is 5% per annum.

Required:

Calculate the **net present cost (NPC)** of each option from the government's perspective (at 5% discount rate). Based on your calculations, determine which option appears more economical. **(5 marks)**

(Total: 20 marks)

QUESTION FIVE

- a) Brakwa LTD is considering relaxing its credit policy to boost sales. Currently, the company's annual credit sales are GH¢10 million and it grants 30 days of credit (terms net 30). In practice, customers pay in about 45 days on average. The contribution margin on sales is 20% (variable costs are 80% of sales). Bad debts are currently 1% of sales. Brakwa finances working capital at a 12% annual cost of capital.

Management proposes to extend the credit period to 60 days to attract new customers and increase revenue. If this more liberal policy is adopted, the following is expected:

- Annual sales would rise by 20% (new sales GH¢12 million) due to easier credit terms.
- The average collection period would lengthen to about 75 days (as customers take advantage of the longer credit).
- Bad debts would increase to 2% of sales (as a wider customer base and longer credit increase default risk).
- The variable cost ratio and contribution margin will remain at 80% and 20% respectively. Brakwa has sufficient production capacity to handle the sales increase.

Assume 360 days in a year.

Required:

- i) Calculate the impact of the proposed credit policy change on Brakwa's profitability, considering the incremental contribution from higher sales against the additional costs. Should the company extend its credit period to 60 days? **(10 marks)**
- ii) Explain **TWO** qualitative factors a Finance Manager should consider before relaxing the company's credit policy to boost sales. **(5 marks)**
- b) Public-Private Partnerships (PPPs) are contractual agreements between public entities and private companies to deliver public infrastructure and services, driven by a need to bridge the infrastructure gap and leverage private sector resources and expertise.

Required:

Discuss **TWO** important factors that the government should consider when deciding whether to pursue a Public-Private Partnership (PPP) instead of traditional public financing. **(5 marks)**

(Total: 20 marks)

SUGGESTED SOLUTION

QUESTION ONE

a)

i) **Cost of capital & WACC implications**

Green Bond

Coupon = 18% of GH¢150m = GH¢27m annually.

Issuance costs: 2.5% → net proceeds = $150\text{m} \times 2.5\% = \text{GH¢}3.75\text{m}$.

Effective cost of debt

$$K_d = \frac{27(1-0.25)}{150 - (3.75 \times 1 - 0.25)}$$

$$K_d = 20.25 / 147.1875$$

$$K_d = 13.75\%$$

DFI Loan

Nominal rate = 16%.

Arrangement fee = 2%

Interest = 16% × GH¢150m = GH¢24m

Arrangement fee 2% = GH¢3m

Net proceeds = GH¢150m – GH¢3m = GH¢147m

Finance cost before tax = GH¢24 / GH¢147 = 16.33%

Effective cost after tax = $16.33(1-0.25) = 12.24\%$

PPP with Government Guarantee

Risk-adjusted cost = 14%.

After-tax = $14\% \times (1 - 0.25) = 10.5\%$.

(9 marks)

ii) **Macroeconomic factors to be considered**

- **Interest Rate and Inflation Outlook:** The decision is highly sensitive to the future direction of monetary policy. If there is an expectation that domestic interest rates will rise significantly in the coming years, locking in a fixed rate via the Green Bond for 12 years could be advantageous, even if its initial cost is higher than the DFI loan (which may have a variable rate). Conversely, if inflation is expected to fall, a variable-rate loan or a shorter-term facility might be better. The PPP's 14% fixed rate could be very attractive in a high-inflation environment.
- **Exchange Rate Risk:** The source of the funds is critical. If the DFI loan or the Green Bond is denominated in a foreign currency while the project's revenues are in Ghanaian Cedis, the firm is exposed to significant exchange rate risk. A depreciation of the Cedi would drastically increase the real cost of repaying the debt and servicing the interest. The PPP arrangement, if sourced in local currency, would eliminate this risk.
- **Sovereign Risk and Political Stability:** The PPP option's viability is directly tied to the government's stability and creditworthiness. A government guarantee is only as good as the government's ability to honor it. Factors such as fiscal discipline,

political stability, and the risk of changes in government policy must be considered. The DFI loan might come with more stability and potentially stronger covenant protections against political interference.

(3 valid points @ 2 marks each = 6 marks)

b) Benefits to companies in Ghana for being ESG compliant

Financing and regulatory approval

ESG-compliant investments such as renewable energy, waste management, energy-efficient equipment are more likely to receive financing and regulatory approval.

Access to Lower-Cost of Capital

Banks, such as DBG, and international investors are offering concessional loans and tax incentives for ESG-aligned projects. Firms that integrate ESG may secure cheaper debt and attract more equity funding.

Investor and Market Perception

ESG adoption enhances corporate reputation and investor confidence, making it easier for listed firms to raise funds on the Ghana Stock Exchange through equity issues or green bonds.

Risk Management in Financing Decisions

Integrating ESG reduces long-term environmental, regulatory, and social risks, which affects the discount rate used in capital budgeting and encourages sustainable financing choices.

Shift Toward Innovative Instruments/investments

Listed firms may issue green bonds or sustainability-linked loans, diversifying financing sources and aligning strategies with investor expectations.

(4 four well-explained @ 1.25 marks each = 5 marks)

(Total: 20 marks)

EXAMINER'S COMMENTS

This question had average pass rate of 52% compared to the 69% pass rate on the previous examinations. The candidates generally performed better in the essay-based part of the question which tested the candidates' knowledge on macroeconomic factors that should be considered in financing decision and benefits of compliance to Environmental, Social and Governance (ESG) standards.

The (a) part of the question that examined candidates' ability to compute the financing cost under bond, development finance loan and Public -Private Partnership received poor to average answers impacting the overall pass rate in question one. More work is needed in this area for future improvement.

QUESTION TWO

- a) **Portfolio of projects that should be funded in the coming year, assuming the projects are divisible**

Computation of Profitability Index:

Project	Investment Required	NPV	PI = NPV/Investment	Rank
A	125	250	2.0	3
B	75	225	3.0	2
C	45	175	3.9	1
D	60	100	1.7	4
E	170	128	0.8	5
F	25	10	0.4	6

Allocation Plan:

Rank	Project	Investment required	Allocation	NPV	
1	C	45.0	45.0	175.0	
2	B	75.0	75.0	225.0	
3	A	125.0	125.0	250.0	
4	D	60.0	55.0	91.7	<--- = 55/60 x 100
5	E	170.0	0.0	0.0	
6	F	25.0	0.0	0.0	
Total		500.0	300.0	741.7	

Recommended portfolio of projects for capital allocation

The company should allocate capital fully to Projects C, B, and A, and partly to Project D for the optimum amount of NPV (GH¢741.7 million).

(8 marks)

- b) **Portfolio of projects that should be funded in the coming year, assuming the projects are divisible**

Capital limit = GH¢300 million

Combination	Total Investment	Slack	Combined NPV	
A, B, C, F	270	30	660	<--- Optimal combination
A, B, D, F	285	15	585	
A, E	295	5	378	
A, C, D, F	255	45	535	
B, C, D, F	205	95	510	
B, C, E	290	10	528	
C, D, E, F	300	0	413	

The company should invest in Projects A, B, C, and F for a combined NPV of GH¢660 million. The slack of GH¢30 million can be invested in securities.

(7 marks)

c) Computation of loan repayment instalment

$$PVA = PMT \left[\frac{1 - \frac{1}{\left(1 + \frac{i}{m}\right)^n}}{\frac{i}{m}} \right]$$

The present value of the payments, PVA_n = Loan principal = GH¢180 million

Annual interest, i = 25%

Frequency, m = 12

Term (in years), t = 5

Number of periods, n = Term \times Frequency = $5 \times 12 = 60$

$$GH¢180,000,000 = PMT \left[\frac{1 - \frac{1}{\left(1 + \frac{0.25}{12}\right)^{60}}}{\frac{0.25}{12}} \right]$$

$$PMT = \frac{GH¢180,000,000}{\left[\frac{1 - \frac{1}{\left(1 + \frac{0.25}{12}\right)^{60}}}{\frac{0.25}{12}} \right]} = \frac{GH¢180,000,000}{34.0700} = GH¢5,283,240$$

The company will be required to pay GH¢5,283,240 at the end of each month to amortise the loan.

(5 marks)

(Total: 20 marks)

EXAMINER'S COMMENTS

The (a) part received good answers for good marks but some candidates still struggled on how to rank and make a decision. The (b) part received average responses.

The (c) part expected candidates to determine monthly instalment to be paid on a five-year facility. Those who understood the requirements scored the maximum marks but some candidates struggled to identify the right formula to be used for that computation. Candidates are therefore expected to put in more effort in this area.

The overall performance was 58% pass rate and a remarkable improvement over the low 10% pass rate in the previous sitting boosting the overall pass rate.

QUESTION THREE

a)

- i) Petransa has a definite borrowing requirement that it wishes to hedge. Therefore, a future hedge is appropriate as it locks in a rate. The company is exposed to rates from June to December and the futures contract is based on 3-month rates from the delivery date. The company should therefore sell 3 June futures contracts and 3 September contracts.

(3 marks)

- ii) In this case, Petransa does not know whether it will need to borrow, as this will depend on whether it wins the tender. Therefore, an option hedge is a better alternative as it will give the ability to lock into an interest rate, but should Petransa's bid be unsuccessful it can allow the option to lapse or it can be sold. To hedge, Petransa should buy 12 put options.

(3 marks)

- iii) In this situation, either a futures or options hedge could be used. Buying 7 futures contracts would create an offsetting position that effectively locks in a deposit rate. If the period over which there are concerns as to interest rates extends beyond 3 months, 7 contracts will need to be purchased at each relevant delivery month.

The preferred approach is likely to depend on the objectives and attitude to risk of the company and also be influenced by the level of probability it assigns to a dramatic fall in interest rates.

(4 marks)

b) **Methods of international trade**

Open Account:

The exporter ships the goods first and receives payment from the buyer at a later agreed date (e.g. 30, 60, or 90 days after shipment). This method is risky to the exporter and should be used only when there is strong trust between parties. Using this method, Taama-Kpanli would ship the goods to the foreign buyer, send an invoice with payment terms, and wait for the buyer to remit payment by the expiration of the credit period.

Cash in Advance:

With this, the buyer pays for the goods before shipment. This method gives the exporter full assurance of payment, but is typically less preferred by foreign buyers who have strong bargaining power. Before shipping the goods, Taama-Kpanli

would require the foreign buyer to transfer the agreed amount via bank transfer or other means. Once payment is received, Taama-Kpanli will proceed with shipment.

Letter of Credit (LC):

A bank issues an LC to guarantee payment to the exporter on behalf of the buyer, provided that the exporter meets all the terms and conditions of the LC. This method guarantees payment to the exporter while protecting the rights of the foreign buyer to receive the goods and related documents as specified. With an LC arrangement, Taama-Kpanli would ship the goods after ensuring compliance with the LC terms (e.g. correct documentation, shipping deadlines). The bank releases payment to Taama-Kpanli once the required shipping documents are presented and verified.

Documentary Collection (D/C):

The exporter's bank sends shipping documents to the buyer's bank with instructions to release them to the buyer only against payment or acceptance of a bill of exchange. Similar to an LC, this method also protects the interests of the two parties to the trade transaction. Through a documentary collection, Taama-Kpanli would ship the goods and send the documents through its bank. The foreign buyer can only claim the goods after paying or committing to pay later, as agreed.

(2 valid points @ 2.5 marks each = 5 marks)

c) **Impact of Digital Transformation on Financial Management Decisions in Ghana**

- **Credit Risk Assessment:** AI algorithms analyse alternative data (mobile money transactions, utility payments, social media activity) to evaluate creditworthiness.
Ghanaian Impact: Banks like Fidelity Bank use AI to extend loans to SMEs in the informal sector by assessing mobile money repayment histories, reducing default rates by 20–30%.
- **Investment Appraisal:** AI-driven predictive models forecast market trends and asset performance using real-time data.
Ghanaian Impact: Pension funds leverage AI to optimize portfolios by predicting cocoa and gold price volatility, improving ROI by 15%.
- **Supply Chain Finance:** Blockchain enables transparent, real-time tracking of trade transactions, reducing fraud and delays.
Ghanaian Impact: COCOBOD uses blockchain to verify shipments and trigger automatic payments from international buyers, cutting settlement time from 30 days to 24 hours and improving working capital cycles.
- **Fundraising & Capital Structure:** Blockchain facilitates tokenization of assets (e.g. real estate, commodities), enabling fractional ownership and broader investor access.
Ghanaian Impact: Startups like **BenBen** tokenize land assets, allowing SMEs to raise capital via digital tokens, reducing reliance on high-interest bank loans.

- **Cash Flow Forecasting:** Big data tools analyse transaction patterns (mobile money, POS, bank transfers) to predict cash inflows/outflows with 95% accuracy.
Ghanaian Impact: Retail chains use mobile money data to optimise inventory and reduce cash conversion cycles by 40%.
- **Fraud Detection & Compliance:** Real-time analytics flag suspicious transactions, ensuring adherence to BoG's AML/CFT regulations.
Ghanaian Impact: GTBank reduced fraud-related losses by 35% in 2022 by deploying AI-driven analytics to monitor mobile money interoperability transactions.

(4 relevant points @ 1.25 marks each = 5 marks)

(Total: 20 marks)

EXAMINER'S COMMENTS

This question was on identifying the right hedging strategy to use to manage exchange rate risk in various scenarios. Candidates were expected to identify the appropriate hedging strategy for each scenario involving futures, options or either of the two. This was averagely answered

The (b) and (c) aspects which covered international trade and digitalisation impact on financial management decisions received varied and good answers reflecting candidates' studies in wide range of materials.

The overall pass rate was 44% even though 4% better than the previous sitting in the same question it was the 4th best answered question and one of the two questions with pass rate less than 50%.

QUESTION FOUR

a)

- i) Value for Year 1 $\text{GH¢}3,000,000 \times 5 = \text{GH¢}15,000,000$
 Value for Year 2 $\text{GH¢}3,600,000 \times 5 = \text{GH¢}18,000,000$
 Value for Year 3 $\text{GH¢}4,300,000 \times 5 = \text{GH¢}21,500,000$

(3 marks)

- ii) $K_e = R_f + B(R_m - R_f)$
 $4 + 1.6 \times 5 = 12\%$

PV of year 2 dividend = $\text{GH¢}500,000 \times 1.12^{-2} = \text{GH¢}398,597$

PV of year 3 dividend = $\text{GH¢}1,000,000 \times 1.12^{-3} = \text{GH¢}711,780$

Year 3 - PV of dividends after year 3

$$= (\text{GH¢}1,000,000 \times 1.03) / (0.12 - 0.03) = \text{GH¢}11,444,444$$

Year 0 - PV of these dividends = $\text{GH¢}11,444,444 \times 1.12^{-3} = \text{GH¢}8,145,929$

Market value from dividend valuation model

$$= \text{GH¢}398,597 + \text{GH¢}711,780 + \text{GH¢}8,145,929$$

$$= \text{GH¢}9,256,306$$

(6 marks)

iii) **Current WACC**

Current cost of equity using CAPM = 12%

$$\text{After-tax cost of debt} = i(1 - t) = 5(1 - 0.2) = 5 \times 0.8 = 4\%$$

$$\text{Current after-tax WACC} = (12 \times 0.75) + (4 \times 0.25) = 10\%$$

WACC after new debt issue

$$\text{Revised cost of equity} = K_e = 4 + (2.0 \times 5) = 14\%$$

$$\text{Revised after-tax cost of debt} = 6 \times (1 - 0.2) = 6 \times 0.8 = 4.8\%$$

$$\text{Revised after-tax WACC} = (14 \times 0.6) + (4.8 \times 0.4) = 10.32\%$$

Comment

The after-tax WACC has increased slightly from 10% to 10.32%. This change is a result of the increases in the cost of equity and the after-tax cost of debt, coupled with the change in gearing.

(6 marks)

b) **Net present cost at 5%**

Item	Option 1: Gov't borrows & builds		Option 2: PPP GH¢'	
	GH¢' million		million	
Up-front construction (t=0)	100		0	
PV of annual payments	2*PVA (5%,10)	15.443	15*PVA (5%,10)	115.826
Total NPC	115.443		115.826	

Recommendation (quantitative) At 5% discount rate, Option 1 is cheaper by GH¢0.383 million in present value terms (115.826-115.443).

(5 marks)

(Total: 20 marks)

EXAMINER'S COMMENTS

Question four was the most challenging question for most candidates which tested candidates' knowledge on valuation of business using dividend valuation model, weighted average after tax cost of capital before and after increase in debt financing.

The few candidates who were thorough and conversant with the subject area did well and scored the maximum marks. Majority of candidates however struggled to provide good answers and requiring more attention in this area.

The overall pass rate was 23% and the worst answered question even though it was an improvement over the 18% pass rate last sitting. This area historically has consistently emerged a challenging area requiring more time in tuition and practice by both tuition providers and candidates.

QUESTION FIVE

a)

i) All amounts in Ghana cedis (GH¢); assume 360 days in a year

Item	Current Policy (Base Case)	Proposed Policy	Incremental Change
Annual Sales	10,000,000	12,000,000 (20% increase)	+2,000,000
Contribution Margin (20% of sales)	2,000,000	2,400,000	+400,000
Average Collection Period (days)	45	75	
Average Receivables	1,250,000 ($45/360 \times 10m$)	2,500,000 ($75/360 \times 12m$)	
Financing Cost on Receivables (12% p.a.)	150,000 ($12\% \times 1,250,000$)	300,000 ($12\% \times 2,500,000$)	+150,000
Bad Debt Expense (% of sales)	100,000 ($1\% \times 10m$)	240,000 ($2\% \times 12m$)	+140,000
Net Profit (net contribution margin)	1,750,000	1,860,000	+110,000

(Fixed costs and other expenses are assumed unchanged; we focus on the changes in contribution and working capital costs.)

Recommendation (Quantitative): Based on calculations, Brakwa LTD should extend its credit period to 60 days, as the expected incremental profit is positive (GH¢110,000 per year).

(10 marks)

ii) **Qualitative factors a Finance Manager should consider before relaxing credit policy**

- **Customer Creditworthiness** – Assess ability to pay using credit ratings, trade references. Ignoring this may increase bad debts.
- **Industry Practices** – Align credit terms with competitors; ignoring could make the firm uncompetitive or too exposed.
- **Impact on Cash Flow** – Longer credit means higher receivables; ignoring this could create liquidity problems.
- **Administrative Capacity** – Systems for monitoring receivables and collections; ignoring may lead to slow follow-up and defaults.
- **Economic Conditions** – Recession or inflation could heighten default risk; ignoring this may erode profitability.

(2 valid points @ 2.5marks = 5 marks)

b) **Factors that government should consider when deciding whether to pursue PPP or traditional public financing.**

- **Risk Transfer and Performance:** A key rationale for PPPs is leveraging private-sector efficiency and risk management. In a well-structured PPP, the private partner assumes significant risks and is incentivised to manage them effectively. The *private consortium absorbs extra costs* if, for example, construction ends up costing more or maintenance needs increase. This risk transfer can result in projects being delivered on time and on budget more often. The government should assess whether the PPP contract truly transfers key risks to the private party.
- **Value for Money and Whole-Life Cost:** The decision should hinge on value-for-money (VfM): which option delivers the best long-term outcome for the public. This means comparing the *whole-life cost* of the asset under each option, including quality and service levels, not just upfront costs. A PPP is justified only if it yields a lower net present cost for the same (or better) service, after accounting for risk and quality.
- **Fiscal Impact and Flexibility:** With a PPP, the government spreads payments over a number of years rather than outlaying a huge sum upfront. This can help ease short-term budget pressures and debt levels, since the project's cost is not entirely on the government's balance sheet at inception. However, such deferral comes at the price of a long-term financial commitment. Also, if fiscal conditions change, the annual payments under the PPP contract are typically inflexible – they must be paid regardless of revenue or budget shortfalls. In contrast, under traditional procurement, while the debt must be repaid, the government has direct control of the asset and possibly more flexibility in scheduling maintenance if needed.
- **Accountability and Service Quality:** In the public sector, projects are judged not only on financial returns but on public service outcomes. The PPP contract must include clear performance indicators (e.g. road quality, availability) and penalties for non-performance to ensure the private partner delivers quality service. The

government should consider its capacity to monitor and enforce the contract. If public sector oversight is weak, there's a risk that service could suffer under a private operator focused on profit. Conversely, a well-managed PPP can bring private-sector innovation and customer service orientation, potentially delivering a better highway than traditional methods. Ensuring strong contract management and transparency is crucial so that the PPP truly serves the public interest.

(2 points @ 2.5 marks each = 5 marks)

(Total: 20 marks)

EXAMINER'S COMMENTS

Question five was the best answered with an overall pass rate was 70% which was a sharp improvement over the marginal 23% pass rate in the July exams.

The question which was on credit policy review and two important factors for consideration for Public-Private Partnership (PPP) instead of traditional public financing was well understood and well answered.