MAY 2018 PROFESSIONAL EXAMINATIONS
FINANCIAL MANAGEMENT (PAPER 2.4)
CHIEF EXAMINER'S REPORT, QUESTIONS AND MARKING SCHEME

STANDARD OF THE PAPER

The standard and quality of the paper was generally satisfactory. The questions generally covered the major subject areas and also appeared balanced for both quantitative and essay type aspects of the syllabus. The questions were easy to understand and apply. No difficult questions were noticed except the (a) part of Question 2 where the dividend per share stated in the question appeared to be unusually high relative to the price per share stated in the question creating unusual cost of equity rates or numbers as high as over 700% which created some confusion in the minds of students. Additionally, question 5 (b) appeared to have used historical years to represent forecast years and to calculate the present values for business valuation purposes.

It was also observed that generally no sub-standard questions were set in the paper and all questions were considered normal and standard for that level. Mark allocations appeared generally satisfactory relative to the nature of questions.

PERFORMANCE OF CANDIDATES

The performance of the students in the paper was generally better as the pass rate improved to 36% compared to the 28% in the November exams sitting. Overall pass rate even though improved but still required further improvement for the paper which historically has been experiencing low pass rates.

The possible reasons for the improved performance were as follows:

- Generally better preparations by students as answers provided showed some level of improvement.
- Improved tuition services provided especially at the Accra and Institute cantres.
- Better knowledge by students on exam preparation and questions answering techniques.
- Better access to study materials especially the out of Accra centres.
- No evidence of copying in the exams was noticed.

NOTABLE STRENGTHS & WEAKNESSES

The over 30% students who did well exhibited the following strengths:

- Reading and understanding of the questions
- Well planned responses to the questions in line with the requirements of questions
- Very legible handwriting making reading and marking easier and better
- Well prepared and showed strengths in both quantitative and written questions
- Avoidance of mixing different answers to different questions and scattering of answers across difference pages mixed with answers of different questions.

Observed weaknesses demonstrated by students

- Poor understanding of Finance principles.
- Poor exam preparation.
- Failure to comprehend the requirements of the questions.
- Wrong numbering of answers to questions making it difficult for examiners.
- Writing on areas not required by the questions.
- Poor arrangement of answers to questions with answers to some questions scattered across different pages haphazardly.

QUESTION ONE

a) Economist has always maintained that to increase inflation, the government ought to implement a policy of high interest rate to dampen demand.

Required:
Identify the effects on the economy of ***a policy of high interest rate*** on expenditure and investments**.** **(6 marks)**

b) Agency problem is pervasive and exists in practically every organization whether a business, church, club, or government. Organizations try to solve it by instituting measures but no organization can remedy it completely.

Required:
i) What is ***agency problem*** within the context of a limited liability company? **(2 marks)**
ii) Explain **TWO** causes of agency problem. **(2 marks)**
iii) Explain **FOUR** remedies to agency problem. **(4 marks)**

c) For a business, it is not necessary that profit should be the only objective; it may concentrate on various aspects such as maximisation of share price, maximisation of sales, capturing more market shares, return on capital employed among others, which will take care of profitability.

Required:
Explain why ***maximization of a company's share price*** is preferred as a financial objective to maximization of its sales. **(6 marks)**

(Total: 20 marks)

QUESTION TWO

a) The Finance Director of Vista Hotel has heard that the market value of the company will increase if the weighted average cost of capital of the company is decreased. The company, which is listed on a stock exchange, has 100 million shares in issue and the current ex div ordinary share price is GH¢2·50 per share. Vista Hotel also has in issue bonds with a book value of GH¢60 million and their current ex interest market price is GH¢104 per GH¢100 bond. The current after-tax cost of debt of Vista Hotel is 7% and the tax rate is 30%. The recent dividends per share of the company are as follows:

Year	**2006**	**2007**	**2008**	**2009**	**2010**
Dividend per share (GH¢)	19.38	20.20	20.41	21.02	21.8

The Finance Director proposes to decrease the weighted average cost of capital of Vista Hotel and hence increase its market value, by issuing GH¢40 million of bonds at their par value of GH¢100 per bond. These bonds would pay annual interest of 8% before tax and would be redeemed at a 5% premium to par after 10 years.

Required:

i) Determine the cost of equity capital of the company. **(4 marks)**

ii) Calculate the weighted average cost of capital of Vista Hotel in the following circumstances:

- before the new issue of bonds takes place; **(3 marks)**
- after the new issue of bonds takes place. **(3 marks)**

b) The Moorgate Company has issued 100,000 GH¢1 par equity shares which are at present selling for GH¢3.00 per share. It has also issued 50,000 warrants, each entitling the holder to buy one equity share. The warrants are protected against dilution. The company has plans to issue rights to purchase one new equity share at a price of GH¢2 per share for every four shares.

Required:

i) Calculate the ***theoretical ex rights price*** of Moorgate's equity shares. **(4 marks)**

ii) Calculate the ***theoretical value*** of a Moorgate right, before the shares sell ex rights. **(3 marks)**

c) The chairman of the company receives a phone call from an angry shareholder who owns 1,000 shares. The shareholder argues that he will suffer a loss in his personal wealth due to this rights issue, because the new shares are being offered at a price lower than the current market value.

The chairman assures him that his wealth will not be reduced because of the rights issue, as long as the shareholder takes appropriate action.

Required:

Prepare a statement showing the effects of the right issue on this particular shareholder's wealth, assuming:

i) He sells all the rights. **(3 marks)**

ii) He exercises one half of the rights and sells the other. **(3 marks)**

iii) He does nothing. **(2 marks)**

(Total: 25 marks)

QUESTION THREE

a) Okechukwu Ltd is financed by three types of capital:

i) 1 million 50p ordinary shares each having current market value of GH¢5.20 cum div. The current dividend, which is due to be paid shortly, is 20p per share. The dividend has grown steadily in the past at a compound annual rate of 15% and is generally expected to continue doing so indefinitely.

ii) 200,000 GH¢1 irredeemable 8% preference shares, each having a current market value of 50p ex. Div.

iii) GH¢2 million 10% debentures, redeemable in 20 years at a price of 110. The current market value is 80 ex int.

Okechukwu is considering a new project having the same risk characteristics as existing projects, which would require an immediate outlay of GH¢150,000 and would produce annual net cash inflow of GH¢30,000 indefinitely.

Required:

Evaluate the viability of the new project using appropriate computations.

(15 marks)

b) Foreign currency risk can be managed, in order to reduce or eliminate the risk. Measures to reduce currency risk are known as hedging.

Required:

i) Explain Transaction and Economic Exposure. **(5 marks)**

ii) Explain **FIVE** ways of mitigating transaction exposure. **(5 marks)**

(Total: 25 marks)

QUESTION FOUR

Adjaye Ltd has current sales of GH¢1.5m per year. Cost of sales is 75 per cent of sales and bad debts are one per cent of sales. Cost of sales comprises 80 per cent variable costs and 20 per cent fixed costs, while the company's required rate of return is 12 per cent. Adjaye Ltd currently allows customers 30 days credit, but is considering increasing this to 60 days credit in order to increase sales.

It has been estimated that this change in policy will increase sales by 15 per cent and bad debts will increase from one per cent to four per cent. It is not expected that the policy change will result in an increase in fixed costs and creditors and stock will be unchanged.

Required:

Advice whether Adjaye Ltd should introduce the proposed policy. Support your answer with relevant computations.

(15 marks)

QUESTION FIVE

a) The directors of Clear Tel Ltd, a private telecommunication company, are considering a proposed resolution for converting the company to a public company and listing its equity stock on the stock exchange. The directors expects that the stock market listing can enhance Clear Tel's ability to raise large amounts of capital from the public. However, they fear that stock market inefficiencies could have a negative effect on the price of Clear Tel's equity stock.

Required:
Explain the **THREE** degrees of ***stock market efficiency***, and how the price of Clear Tel is expected to move in each case. **(6 marks)**

b) Restwell Ltd, a hotel leisure company, is currently considering taking over a smaller private limited company, Staygood Ltd. The board of Restwell is in the process of making a bid for Staygood, but first needs to place a value on the company. Restwell has gathered the following data:

Year	**2011**	**2012**	**2013**	**2014**
	GH¢	**GH¢**	**GH¢**	**GH¢**
Profit after tax	6,000,000	6,200,000	6,300,000	6,300,000

The company's earnings yield is 12%.

Required:

i) As a Finance Manager, calculate the value of the company based on the present value of expected earnings. **(6 marks)**

ii) Explain **THREE** problems associated with using P/E method for valuing firms. **(3 marks)**

(Total: 15 marks)

SOLUTION TO QUESTIONS

QUESTION ONE

a)

- Changes in interest rates affect the public's demand for goods and services and, thus, aggregate investment spending.
- A decrease in interest rates lowers the cost of borrowing, which encourages businesses to increase investment spending.
- Lower interest rates also give banks more incentive to lend to businesses and households, allowing them to spend more.
- Higher interest rates may make the corporate sector pessimistic about future business prospects and confidence in the economy. This ay further reduce investment in the economy.
- Higher interest rates will increase mortgage payments and will thus reduce the amount of disposable income in the hands of home buyers for discretionary spending.
- Higher interest rates encourage savers to save as more interest will be earned from their savings or investments

(Any 4 points for 6 marks)

b)

i) **The agency problem** is a conflict of interest inherent in any relationship where one party is expected to act in another's best interests. Within the context of limited liability company, the agency problem usually refers to a conflict of interest between a company's management and the company's stockholders. The manager, acting as the agent for the shareholders, or principals, is supposed to make decisions that will maximize shareholder wealth even though it is in the manager's best interest to maximize his own wealth.

(2 marks)

ii) Causes of Agency Problem

- Managers prefer greater levels of consumption and less intensive work, as these factors do not decrease their remuneration and the value of the company's shares that they own;
- Managers prefer less risky investments and lower financial leverage, because in this way they may decrease the danger of bankruptcy, and avoid losses on their managerial capital and portfolios;
- Managers prefer short-term investment horizon;
- Managers avoid problems stemming from reductions in employment levels, which increase with the changes in control of a company.
- Managers also fear rocking the boat to deliver shareholder value and will rather choose operating in their comfort zones.

(2 points for 2 marks)

iii) Remedies of Agency Problem

- **Managerial Compensation:**

Managerial compensation refers to the incentive mechanism for the good performance of the management. Their objectives are to attract and retain able managers and to harmonize managerial actions with the interest of shareholders. Several measures are used to evaluate managers' performance. Some of the most common are sales, profit, current value of expected cash flows and value added.

- **Shareholder control and interference**

Shareholders can influence the company's management in two ways. Firstly, they can influence management directly as to how the company should be managed. Secondly, any shareholder can make a proposal which is voted on at the annual general meeting (AGM).

- **Threat of dismissal**

In the past it seldom happened that a senior manager or chief executive officer was dismissed by shareholders. The reason for this was possibly that the ownership of a great number of companies was dispersed, as well as the fact that the agency problem was only brought to the attention of shareholders (and management) over the past two decades.

- **Threat of take-overs**

The threat of a take-over serves to monitor the actions of management. If the actions or decisions of management decrease the future earnings or value of shareholders, the share price usually decreases as well. In some instances, the company can become a take-over target. If the management of such a company is replaced, the move can benefit the shareholders. The threat of take-overs can thus serves as an external control mechanism which ensures that the decisions and actions of management maximize shareholders' wealth.

(4 points for 4 marks)

c) Reasons for Maximization of a company’s share price as preferred financial objective

- It serves the interests of owners, (shareholders) as well as other stakeholders in the firm; i.e. suppliers of loaned capital, employees, creditors and society.
- It is consistent with the objective of owners’ economic welfare.
- The objective of wealth maximization implies long-run survival and growth of the firm.
- It takes into consideration the risk factor and the time value of money as the current present value of any particular course of action is measured.
- The effect of dividend policy on market price of shares is also considered as the decisions are taken to increase the market value of the shares.

- The goal of wealth maximization leads towards maximizing stockholder's utility or value maximization of equity shareholders through increase in stock price per share.

(4 points for 6 marks)

(Total: 20 marks)

EXAMINER'S COMMENTS

The question covered (a) to (c). The (a) part covered the effects of policy of high interest rate on investment and expenditure, the question appeared a bit ambiguous to some students and answers varied widely with students trying to answer generally without going straight to the requirements. The performance was generally average.

The (b) part appeared straight forward on agency problem, causes and remedies to agency problem which was understood and well answered by the students attracting good marks in the question.

The last part (c) was on why maximisation of company's share price was preferred to maximisation of sales. This attracted wide answers from students and overall performance was average.

The overall performance on question one by students which was entirely essay and attracted 20 marks was generally good with the (b) part helping students do better.

QUESTION TWO

a) **(i) Cost of equity**

Geometric average dividend growth rate = $(21{\cdot}8/19{\cdot}38)^{0.25} - 1 = 0{\cdot}0298$ or 3%

Using the dividend growth model, ke = 0·03 + ((21·8 x 1·03)/2.5) = 0·03 + 8.9816= 9.0116 x 100% = **901.16%**

Market values of equity and debt.

Market value of equity = Ve = 100m x 2·50 = GH¢250 million

Market value of bonds = Vd = 60m x (104/100) = GH¢62·4 million

Total market value = Ve + Vd = 250 + 62·4 = **GH¢312·4 million**

(4 marks)

(ii) WACC before new issue of bonds takes place

The current after-tax cost of debt is 7%

WACC = ((ke x Ve) + (kd(1 – T) x Vd)/(Ve + Vd)) = ((901.16 x 250m) + (7 x 62·4m))/312·4m = 7.2256 x 100% =**722.56%**
The weighted average after-tax cost of capital before the new issue of bonds is 722.56%.

(3 marks)

WACC after new issue of bonds takes place

After-tax cost of debt of new bond issue
After-tax interest rate = 8 x (1 – 0·3) = **5·6% per year**
Using interpolation:

Year	**Cash flow**	**¢**	**Discount at 5%**	**PV**
0	Market price	-100	1.0	-100
1.-10	Interest	5.6	7.722	43.24
10	Redemption	105	0.614	64.47
				7.71
Year	**Cash flow**	**¢**	**Discount at 6%**	**PV**
0	Market price	-100	1.0	-100
1.-10	Interest	5.6	7.36	41.22
10	Redemption	105	0.558	58.59
				- 0.19

After-tax cost of debt = 5 + [((6 – 5) x 7·71)/(7·71 + 0·19)] = 5 + 0·98 = **5·98% or 6%**

WACC after new issue of bonds
The market value of the new issue of bonds **is GH¢40 million**
The total market value of Sevista Hotel increases to 312·4 + 40 = **GH¢352·4 million**
WACC = ((901.16 x 250m) + (7 x 62·4m) + (6 x 40))/352·4m = **641.5% or 642%**
After the new issue of bonds, the weighted average after-tax cost of capital has decreased from 722.56% to 641.5% because the proportion of debt finance, which has a lower required rate of return than equity finance, has increased. Gearing on a market value basis has increased from 20% (62·4/312·4) to 29% (102·4/352·4). The WACC calculation assumes that the cost of equity has not changed, when in reality the cost of equity might be expected to rise in response to the increase in financial risk caused by the new issue of debt. The share price of the company has also been assumed to be constant.

(3 marks)

b)
i) **Theoretical ex-right price**

	GH¢
4 existing shares @ ¢3	12
1/5 Right share @ ¢2	2
	14

Theoretical ex-right value of the shares = $\frac{14}{5}$ = **¢2.80**

(4 marks)

ii) **Value of a right** = Theoretical ex-right prices – rights prices

= ¢2.80 - ¢2.0 = ¢0.80 **(3 marks)**

Value of an existing share required to purchase a right

= $\frac{¢0.80}{4}$ = ¢0.20

c)

(i) **Sells the rights** =

Pre-rights wealth = 1,000 shares @ ¢3.00	=	¢3,000
		GH¢
Cash from selling rights = 1,000 x ¢0.20	=	200
Value of shares ex-rights = 1,000 x 2.80	=	2,800
Total wealth	=	**3,000**

(3 marks)

(ii) **Exercise half and sells the other half**

Allowed 1,000/4 = 250 rights; purchases 125 @ ¢2.00; sells half and gains 125 x ¢0.80.

Pre-rights wealth 1,000@¢3.00	=	3,000
After rights issue:	=	GH¢
Old shares 1,000@¢2.80	=	2,800
New shares 125 @ ¢2.80	=	350
Cash from sale 125 @¢0.80	=	100
Total wealth after right issue		3,000

(3 marks)

(iii) Does nothing

	GH¢
Pre-rights wealth after rights issue	3,000
After rights wealth	GH¢
Old shares 1,000 @¢2.80	2,800
Total wealth	2,800

It is only if the shareholder does nothing that his wealth position will be reduced. As long as all the rights are either sold or exercised his wealth position will be unchanged. This is not surprising because the theoretical ex-rights price has been calculated as a weighted average of the old price and the price of the right.

(2 marks)

(Total: 25 marks)

EXAMINER'S COMMENTS

Question 2 was one of the longest and most comprehensive questions in the paper which covered (a) to (c). The (a) part which covered the calculation of cost of equity and weighted average cost of capital before and after the introduction of debt (bonds) into the capital structure. This part created uncertainty among students as the dividend per share provided in the question was almost 8 times the price of the share. Dividend per share varied between 19.38 cedis per share to 21.8 cedis per share for the listed years compared to the share price of 2.5 cedis per share thereby producing unusual rates of return on equity and weighted average cost of capital. This development confused students as most students left their answers unconverted to percentages. The marking process took into consideration to ensure fair assessment of students.

The (b) and (c) parts covered rights issue and determination of the value of rights and the various scenarios and implications in the exercising or not exercising of the rights on shareholders. This was a straight forward question which was well answered and helped students perform well in this question. The question carried a total of 25 marks.

The overall performance was fairly good.

QUESTION THREE

a) Calculation of Cost of Capital

(i) **Cost of equity capital**

$$Ke = \frac{D(1+g)}{Mv} + g$$

Where D = Dividend proposed

g = Growth rate of dividend

Mv = Ex div market value of shares

$$= \frac{¢0.20(1.15) + g}{¢5.20 - 0.20} + 0.15$$

$$= \underline{\underline{19.6\%}}$$

(3 marks)

(ii) **Cost of preference shares**

$\frac{d}{Mv} = \frac{0.08}{0.50} = \underline{\underline{16\%}}$

(2 marks)

(iii) Cost of redeemable debentures:

Year		**Value**	**DF at 12%**	**PV**	**DF at 14%**	**PV**
0	Current	(80)	1	(80)	1	(80)
1-20	Interest	10	7.47	74.7	6.62	66.2
20	Redemption value	110	0.10	11	0.07	7.70
			NPV	5.70		(6.10)

Cost of redeemable debentures =

By interpolation:

$12 + \frac{5.70}{5.70+6.10} \times 14 - 12$

$= \underline{12.97\%}$

(3 marks)

(iv) **Calculation of weighted average cost of capital**

	Market value	**Cost of capital**	**Weighted cost**
	GH¢	%	GH¢
Ordinary shares	5,000	19.6	980
Preference shares	100	16	16
Debentures	1,600	12.97	207.56
	6,700		1203.52

(2 marks)

Weighted average cost of capital $= \frac{1203.52}{6{,}700}$

$= \underline{17.965\%}$ or $\underline{18\%}$

Calculation of the net present value of project

		GH¢
PV of annual net cash inflow	$\frac{30{,}000}{0.18} =$	166,667
Less PV of initial outlay		(150,000)
	NPV	16,667

(3 marks)

Decision

Based on NPV criterion, the acceptance of the project is worthwhile.

(2 marks)

b)

i) **Transaction exposure** – This arises from the effect that exchange rate fluctuations have on a company's obligations to make or receive payments denominated in foreign currency. This type of exposure is short-term to medium-term in nature. Transaction exposure is driven by transactions which have already been contracted for and hence they are of short term nature. For example: if Company A, based in the US has already supplied goods worth $100 Mio to another Company B in the UK and has agreed to receive the payment in GBP, it has already undertaken transaction risk on cash flows.

(2.5 marks)

Economic (or operating) exposure – This is lesser-known than the previous two, but is a significant risk nevertheless. It is caused by the effect of unexpected currency fluctuations on a company's future cash flows and market value, and is long-term in nature. The impact can be substantial, as unanticipated exchange rate changes can greatly affect a company's competitive position, even if it does not operate or sell overseas. For example, a Ghanaian furniture manufacturer who only sells locally still has to contend with imports from Asia and Europe, which may get cheaper and thus more competitive if the dollar strengthens markedly.

(2.5 marks)

ii) Ways of Mitigating Transaction Exposure

The most common methods for hedging transaction exposures are −

- **Forward Contracts** − If a firm has to pay (receive) some fixed amount of foreign currency in the future (a date), it can obtain a contract now that denotes a price by which it can buy (sell) the foreign currency in the future (the date). This removes the uncertainty of future home currency value of the liability (asset) into a certain value.

- **Futures Contracts** − These are similar to forward contracts in function. Futures contracts are usually exchange traded and they have standardized and limited contract sizes, maturity dates, initial collateral, and several other features. In general, it is not possible to exactly offset the position to fully eliminate the exposure.

- **Money Market Hedge** − Also called as synthetic forward contract, this method uses the fact that the forward price must be equal to the current spot exchange rate multiplied by the ratio of the given currencies' riskless returns. It is also a form of financing the foreign currency transaction. It converts the obligation to a domestic-currency payable and removes all exchange risks.

- **Options** − A foreign currency option is a contract that has an upfront fee, and offers the owner the right, but not an obligation, to trade currencies in a specified quantity, price, and time period.

Risk Shifting − The most obvious way is to not have any exposure. By invoicing all parts of the transactions in the home currency, the firm can avoid transaction exposure completely. However, it is not possible in all cases.

- **Currency risk sharing** − The two parties can share the transaction risk. As the short-term transaction exposure is nearly a zero sum game, one party loses and the other party gains%

- **Leading and Lagging** − It involves playing with the time of the foreign currency cash flows. When the foreign currency (in which the nominal contract is denominated) is appreciating, pay off the liabilities early and collect the receivables later. The first is known as leading and the latter is called lagging.

- **Reinvoicing Centers** − A reinvoicing center is a third-party corporate subsidiary that uses to manage one location for all transaction exposure from intra-company trade. In a reinvoicing center, the transactions are carried out in the domestic currency, and hence, the reinvoicing center suffers from all the transaction exposure.

  - Netting

(Any 5 points for 5 marks)

(Total: 25 marks)

EXAMINER'S COMMENTS
The question consisted of two parts (a) and (b) with the (a) portions covering project evaluation which was averagely answered attracting average marks. The computation of costs of equity, preference shares, redeemable debentures and overall weighted average cost of capital were well answered by most students but some students struggled in the final computation of the NPV of the project. Few students did very well.

The (b) part was essay type question was on transaction and economic exposures on exchange risk and ways or strategies to mitigate transaction exposures. This was straight forward and well answered by majority of students.
The question on overall basis attracted some good answers from students

QUESTION FOUR

New level of sales will be 1,500,000 x 1.15 = ¢1,725,000

Variable costs are 80% x 75% = 60% of sales

Contribution from sales is therefore 40% of sales

(3 marks)

	GH¢	GH¢
Proposed investment in debtors = 1,725,000 x 60/365 =		283,562
Current investment in debtors = 1,500,000 x 30/365 =		123,288
Increase in investment debtors		**160,274**
Increase in contribution = 15% x 1,500,000 x 40% =		90,000
New level of bad debts = 1,725,000 x 4% =	69,000	
Current level of bad debts = 1,500,000 x 1% =	15,000	
Increase in bad debts		(54,000)
Additional financing costs = 160, 274 x 12% =		(19,233)
Savings by introducing change in policy		**16,767**

(10 marks evenly spread using ticks)

Decision

The financing policy is financially acceptable, although the savings are not great.

(2 marks)

(Total: 15 marks)

EXAMINER'S COMMENTS

Question four which was on debtor's management and policy on increasing debtor days to boost sales. Students generally struggled to answer the question well with most students struggling hard to work out some of the required numbers to get some few marks. The question was poorly answered except the few students who understood the question and scored the maximum marks. The overall marks were 15 with majority getting below the average.

QUESTION FIVE

a) The Three Basic Forms of the EMH

The efficient market hypothesis assumes that markets are efficient. However, the efficient market hypothesis (EMH) can be categorized into three basic levels:

Weak-Form EMH

The weak-form EMH implies that the market is efficient, reflecting all market information. This hypothesis assumes that the rates of return on the market should be independent; past rates of return have no effect on future rates. In this event that the stock market has weak-form efficiency, the price of Clear Tel will move in line with historical changes.

Semi-Strong EMH

The semi-strong form EMH implies that the market is efficient, reflecting all publicly available information. This hypothesis assumes that stocks adjust quickly to absorb new information. The semi-strong form EMH also incorporates the weak-form hypothesis. Given the assumption that stock prices reflect all new available information and Clear Tel purchase stocks after this information is released, Clear Tel cannot benefit over and above the market by trading on new information.

Strong-Form EMH

The strong-form EMH implies that the market is efficient: it reflects all information both public and private, building and incorporating the weak-form EMH and the semi-strong form EMH. Given the assumption that stock prices reflect all information (public as well as private) Clear Tel would not be able to profit above the average investor even if he was given new information.

(2 marks for 3 points = 6 marks)

b) Restwell Ltd

i)

Year	GH¢000	DF(12%)	GH¢000
2011	6,000	0.893	5,358
2012	6,200	0.797	4,941.4
2013	6,300	0.712	4,485.6
2014	6,300	0.636	4,006.8
			18,791.8

The value of the company based on the present value of expected earnings is **GH¢18,791,800.**

(6 marks)

ii) **Problems associated with P/E method for valuing firms**

- **Doesn't account for growth**- The price to earnings ratio doesn't account for any type of growth or the lack of growth. The fact that growth isn't factored in means that older more mature stocks are typically going to appear cheaper even if they aren't growing if you use the P/E ratio. For many investors growth is a variable they do not want to exclude.

- **Backward looking-** The P/E ratio is actually a backward looking indicator if you use the company's most recent full year earnings number. A backward looking number can be of very little help to the investor during a period where economic conditions have changed significantly in a short period of time.

- **Quality of earnings not considered**- The last several months have been the perfect example of how a company can really inflate their earnings to look better than they really are. Many banks were able to do this for months, and because of that investors that solely used the P/E ratio would have thought they were great buys. In retrospect if the investor had been looking at other parts of the balance sheet they may have seen inflated earnings as a real issue.

- **The Price doesn't consider debt-** Companies with major debt issues are obviously higher risk investments, but the P in the P/E ratio only considers the equity price and does nothing with the debt that the business has to continue with operations. As we have found out over time, excess debt can be a real problem, and the market price of a stock isn't always a good gauge of fair value.

- **Uses profit which is not cash.**

(Any 3 points for 3 marks)

(Total: 15 marks)

EXAMINER'S COMMENTS

This question was generally well answered by students that helped students improve their total marks. It was a straight forward question with (a) part covering degrees of stock market efficiency which was essay and generally well covered by students.

The (b) part was a straight forward business valuation question where projected earnings were to be discounted to present values over the given period to determine the value of the company. Most students understood and answered the question well attracting and earning the maximum marks

The problem part of the question was the used of historical years (2011 to 2014) as the forecast or projected period which were historical relative to the current year of the examination.

On Overall basis this is one of the questions that were well answered by students in the paper.

CONCLUSION

Remedies for observed weaknesses

- More preparation time by students before writing the paper.
- Minimum period should be allowed by ICA before a student sit for the exams depending on the background of the student.
- More questions and answer bank and guide lines should be provided by the Institute and other accredited tuition centres.
- ICA tuition and revision centres should incorporate exam comprehension and answering techniques as part of their revision lectures and kits to better guide students preparing to write the exams.
- Explore the possibility of implementing web based or electronic based tuition and revision centres for students leaving outside the Accra area.
- Implementation of mock like exams by the accredited tuition centres to help prepare the students to have the feel of the exams before the main exams and feedback given at individual level on what went well and what didn't go well in the mock or pre exam test even if it is at an affordable fee for students.