QUESTION 1

(a) The maximization of shareholders wealth is to consider the returns that investors expect in exchange for becoming shareholders. The wealth to shareholders is measured by two factors:

- The regular dividend payments to shareholders and
- Capital gain made on disposal of shares.

The maximization of wealth then becomes the maximization of such returns to the shareholders.

Shareholders wealth maximization is considered important than maximization due to the following reasons:

a. The cash flow paid to shareholders.
b. The timing of the cash flow(the present value or the time value of money)
c. Considers risk associated with the cash flow.

(b) An efficient portfolio is one that provides the highest expected return for any given degree of risk and also provides the lowest risk for any given expected return.

(c) Role of a Finance Manager in the Public Sector Organization

Private sector financial objectives are comparatively easy to state and measure: the aim is to maximize shareholder wealth and a measure of achievement is the amount of profit a company generates. Public sector objectives are more complex. Public sector organization can be defined as organizations which have a goal other than that of earning a profit for their owner. Their primary purpose is to provide services to the public which would not otherwise be available or not provided within the financial means of all the member of the public.

Public sector organization and their financial objectives can be divided into three types:

a. Those which are run in order to make a profit and which should be financed entirely from the charges they make for their goods or services. These include nationalized industries and organizations like Post Office.
b. Organizations which are not run to create a profit (for example the NHIS);
c. Organizations which are service based, meeting their needs mainly from charges for their services, but which also are subsidized from taxation.

Organizational which run for profit in the public sector are similar to organizations to the private sector. They usually have to meet government set targets in the form of a

percentage return on capital employed, or are required to break even. However unlike private organizations public ones are obliged to supply their product or to provide service to all part of the country continuously, which can obviously hamper profitability. In compensation though, many public sector organizations enjoy a monopoly situation.

The position of public non-profit making organizations and services based organizations is different. The financial objective of these two classes is to provide 'value for money', buy using the money allocated to them efficiently to allow the organization to discharge its designated purposes well.

Value for money
The public sector aim of achieving 'value for money' can be defined as the pursuit of the economy, efficiency and effectiveness.

(a) Economy this is the obtaining of the appropriate quality resources at the least cost. The measure is a relative one and can be assessed in two ways: are costs more than expected, or are costs more than the comparable inputs?
(b) Effectiveness this is concerned with ensuring that the output of the organization achieves its objectives.
(c) Efficiency this links together inputs and outputs, and measures the amount output per unit. To be efficient the maximum amount of outputs should be achieved from the resources put in, or only the minimum level of resources should be used to achieve a given level of output.

Output is the desired result of the organization. However this is often not easy to measure because of its lack of quantitative nature. Therefore in order to measure a public service, such as the Korle-Bu Hospital, quality performance indicators are used to give some idea of what is being achieved. For example, a hospital's performance indicators could include the number of beds occupied, the number of outpatients treated, and the length of waiting lists for operations. The indicators can then be compared over time, or with set standards, etc. it has to be remembered though that.

(d)

SICA LIMITED
COMMON SIZE STATEMENT

	2010	2009
Revenue	100 %	100%
Cost of sales	(47)	(47)
Gross Profit	53	53
Distribution costs	(22)	(23)
Administrative expenses	(8)	(7)
Operating Profit	24	23
Interest Received	1	1
Other Income	0	1
Profit before tax	25	24
Tax	(6)	(6)
Profit for the year	19	18

Comments
Cost of sales to sales no change.
Improvement in distribution cost in 2010
Improvement in profit for the year.
Administrative expenses worsened.
No change in finance cost.

QUESTION 2

The relevant cash flows are:

(a) Four demerits of payback period method are as follows:
- It is unable to distinguish between projects with the same payback period.
- It ignores the timing of cash flows within the payback period.
- It ignores the time value of money.
- It may lead to excessive investment in short term projects.

(b) Year 0 Purchase of new machines = GHS 15,000

Year 1 – 5 Contribution from the new product

5,000 (3.2 – 1.5 less contribution	= GHS 8,500
Foregone 5,000 x (4 x GHS01.5)	= GHS 3,000
	= GHS 5,500

(c) The NPV is calculated as follows:

Year	Cost	Working Capital	Contribution	Net Cash flow	DCF @ 20%	PV of net cash
	GHS	GHS	GHS	GHS		GHS
0	(15,000)	(1,000)		(16,000)	1.0	(16,000)
1		500		(500)	0.833	(417)
1 – 5			5,500	5,500	2.991	16,451
5	1,000	1,500		2,500	0.422	1,005
NPV						1,039

The project should be undertaken because it has a positive NPV.

QUESTION 3

(a)

(i) Weak form

The weak form of efficient market hypothesis stipulates that current share prices already reflect past price and volume of information. It states that "the information contained in the past sequence of prices of a security is fully reflected in the current market price of that security. It implies that no one should be able to out perform the market using something that "everybody" else know."

Semi strong form

A market is said to be semi-strong form efficient if share prices reflect all historic publicity available information. All publicity available information is fully reflected in the shares current market prices. The public information stated not only past prices but also data reported in a company's financial statements, company's announcement, economic factors and others.

Strong form

Markets are said to be strong form efficient if share prices reflect all information whether it is publicly or privately available. This means that private or insider information is quickly incorporated by market prices and therefore cannot be used to reap abnormal trading profits.

(ii) Benefits of listing on the Ghana Stock Exchange

- It opens up new avenues for the company to raise finance.
- It increases the marketability of the marketability shares.
- It raises the profit of the company.
- The company may obtain better credit rating.
- The company can use it shares to fund future take-over activity.
- Companies enjoy tax concessions under tax laws resulting in a lower corporate tax rate.
- Companies gain national and international reputation with it share value quoted on the stock market.
- It provides compliance to corporate governance principles.

(b)

(i) Dividend Valuation Model

$$Ke = \frac{Do\ (1 + g)}{Po} + g$$

Where:

Ke = cost of equity
Do = dividend paid
g= growth
Po = market price per share

Dividend per share = GHS2.6 m / 10m
= GHS0.26

Ke = 0.26 (1 + 0.1) / 3.50 + 0.1
= 0.1817 = 18.17%

ii. Using CAPM :
Ke = Rf + B (Rm – Rf)
Where:
Rf (Risk free) = 11%
B (Beta factor) =?
Rm (Average Market Return) = 15%

Therefore Beta = Std. Dev x Correlation Variance / Market Std Dev.

= 20% x 0.8 / 10% = 1.6

Ke = 11% + 1.6 (15% - 11%)
= 17.4%

iii. Both measures of cost of equity is rounded at 18% for the purpose of calculating WACC.

$$WACC = [Ke \times \frac{E}{MV}] + [Kd(1-t) \times \frac{D}{MV}]$$

Ke = 18%
Kd = 11% (1- 0.35) = 7.2%
WACC = [18% x 2/3] + [7.2 % x 1/3]
12% + 2.4% = 14.4%

QUESTION 4

(a) Business risk is defined as the uncertainty inherent in projections of future generating income or earnings before interest and taxes, while financial risk refers to (i.) the increased variability of earnings available to the firm's ordinary shareholders and (ii.) the increased profitability of financial distress borne by the firms' owners if the financial leverage is employed b y the firm.

(i)

i. To acquire certain desirable assets at a lower cost.
ii. To achieve greater economies of scale.
iii. To take advantage of raw materials or end-product markets.
iv. A potential to grow rapidly than is possible through internal expansion.
v. Desire to diversify product lines or business.
vi. To take advantage of tax loss carry forwards.

(ii)

i. Number of ordinary shares = 1,800,000 x 0.5 = 900.000
ii. EPS = $\frac{\text{GHS } 1{,}800{,}000 + \text{GHS } 360{,}000}{6{,}000{,}000 + 900{,}000}$ = GHS 0.313
iii. Equivalent EPS = GHS 0.313 x 0.5 =GHS 0.157
v. Expected market price = 0.157 x 10 times = GHS 1.57
vi. Market Value = GHS 1.57 x 6,900,000 = GHS 10,833,000

QUESTION 5

(a)

i. Hedging – taking a temporary position in the forward market which is exactly and opposite to a current or anticipated position in the cash market so that the loss (or gain) on the forward transaction offsets the loss or gain on the cash transaction. Hedging in the forward market is the elimination or avoidance of foreign exchange.
ii. Trading – traders tend to buy and sell contracts continuously each day with the hope of benefiting from small price changes, and profiting by buying low and selling high.
iii. Speculation – the opposite of hedging is speculation, which is acceptance of foreign exchange risk. Speculators will generally take large positions and hold these for a longer period of time than traders.
iv. Arbitrage – purchase or sale in the forward market and simultaneous sale or purchase (opposite transaction) in another market, in an attempt to make a profit in the two markets.

(b)

i. Option – an option is a security that gives its holder the right, but not the obligation, to buy or sell an asset at a set price during a specified time period. Options are classified as either call or put options. A call is an option to buy a particular asset, whereas a put is an option to sell it.

ii. Warrant – a warrant is a company issued option to purchase a specific number of shares of the issuing company's ordinary shares at a particular price during a specified time period.

iii. Rights Issue – in a rights offering the company's existing shareholders are given an option to purchase a fraction of the new shares equal to the fraction they currently own, thereby maintaining their original ownership percentage.

(c) ?

(d) i.

- $Q = \sqrt{\frac{2CoD}{Ch}} = \sqrt{\frac{2 \times 20 \times 40{,}000}{0.4}} = 2{,}000$ units

- This means that there will be:
  $\frac{40{,}000}{2{,}000} = 20$ orders placed each year.

- The inventory cycle is therefore:
  $\frac{52 \text{ weeks}}{20 \text{ orders}} = 2.6$ weeks

- Total cost will be (20 x GHS 20) + $[\frac{2{,}000}{2} \times 40\text{ p}]$ = GHS 800 a year.

ii.

The change in credit policy is justified if the rate of return on the additional investment in working capital would exceed 30%.

Extra profit

Contribution /sales ratio	15%
Increase in sales revenue	GHS 1,200,000
Increase in contribution and profit	GHS 180,000

a. Extra investment, if all accounts receivable take two months credit.

	GHS
Average accounts receivable after the sales increase (2/12 x GHS 6,000,000)	1,000,000
Less current average accounts available (1/12 x GHS 4,800,000)	400,000
Increase in accounts receivables	600,000
Increase in inventories	200,000
	800,000
Less increase in accounts payable	40,000
Net increase in working capital investment	760,000

Return on extra investment $\frac{\text{GHS } 180{,}000}{\text{GHS } 760{,}000}$

= 23.7 %

b. Extra investment, if only the new accounts receivables take two months credit

	GHS
Increase in accounts receivable (2/12 x GHS 1,200,000	200,000
Increase in inventories	200,000
	400,000
Less increase in accounts payable	40,000
Net increase in working capital investment	360,000

Return on extra investment = $\frac{\text{GHS } 180,000}{\text{GHS } 360,000}$ = 50%

The policy is worthwhile only if the existing customers stick to the 1 month and only the new customers take the two months.