# MAY 2016 PROFESSIONAL EXAMINATION
# ADVANCED FINANCIAL MANAGEMENT (3.3)
# QUESTIONS AND MARKING SCHEME

## QUESTION ONE

a) Crown Limited has a mixture of investment portfolios, stock A and Stock B. The historical performance return on the stocks are as follows:

| Year | Stock A Return (%) | Stock B Return (%) |
|---|---|---|
| 2010 | -10 | -3 |
| 2011 | 18 | 21 |
| 2012 | 39 | 44 |
| 2013 | 14 | 4 |
| 2014 | 33 | 28 |

**Required:**

i) Calculate the average rate of return for each stock during the period of 2010 to 2014. **(3 marks)**

ii) Calculate the average return on the portfolio during the period if crown limited held 50% each of stock A and stock B. **(3 marks)**

iii) Calculate the return of the portfolio using standard deviation approach. **(4 marks)**

b) A Ghanaian Food and Beverage company has recently imported raw materials from China with an invoice value of US$264,000 payable in three months' time. Due to the Company's efficient production capacity, it has finished production and exported finished products to Germany. Consequent to this, the German Customer has been invoiced for US$75,900 payable in three months' time. Below is the current spot and forward rates for the transactions:

Current Money Market rates per annum are as follows:

| | |
|---|---|
| US$ (USD): | 11% - 13.2% |
| Gh¢ (GHS): | 12.7% - 14.3% |

USD/GHS

| | |
|---|---|
| Spot: | 0.9850 - 0.9870 |
| 3 Months Forward: | 0.9545 - 0.9570 |

**Required:**

Demonstrate with relevant calculations how the Ghanaian Company can hedge its exposure to foreign exchange risk using:

i) The Forward Markets. **(3 marks)**

ii) The Money Markets. **(4 marks)**

iii) Determine which of the above markets the best hedging technique is. **(3marks)**

**(Total: 20 marks)**

## QUESTION TWO

a) Joebel Limited is a diversified company operating in different industries on the African Continent. The shares of the company are widely traded on the stock exchange and currently has a market of GH¢3.20 per share. The company's dividend payment over the last five years are as follows:

| **Year** | **Dividend Per Share (DPS) (GH¢)** |
|---|---|
| 2015 | 0.35 |
| 2014 | 0.32 |
| 2013 | 0.30 |
| 2012 | 0.29 |
| 2011 | 0.28 |

The Board of Directors of Joebel Limited are currently considering two main investment opportunities: one in Oil and Gas sector and the other in the Hotel and Tourism Sector. Both projects have short lives and their associated cash flows are as follows;

| **Year** | **Oil & Gas GH¢'000** | **Hotel & Tourism GH¢'000** |
|---|---|---|
| 1 | 85 | 180 |
| 2 | 175 | 195 |
| 3 | 160 | 150 |

The investment in Oil and Gas would cost GH¢400,000 while that in Hotel and Tourism would cost GH¢405,000.

The Management of the Company has identified the industry beta of Oil and Gas and Hotel and Tourism as 1.2 and 1.6 respectively. However, a research conducted by management revealed that Joebel Limited's beta is 1.5. The average return on the companies listed on the stock exchange is 25% and the yield on Treasury bill is 20%.

**Required:**

i) Compute the Net Present Values (NPV) of both projects using the company's weighted average cost of capital as a discount rate. **(5marks)**

ii) Compute the NPV using a discount rate which take into account the risk associated with the individual projects. **(5 marks)**

iii) Advise Management regarding the suitability and acceptability of the projects **(1 mark)**

b) As a trading company, Joewoka exports and imports merchandize in many countries for which it receives and makes payment in foreign currency. This exposes the company to foreign exchange risk.

As a Financial Consultant to the company, suggest **FOUR** approaches that the company can use to hedge against foreign exchange exposure. **(5 marks)**

c) Ten years ago, Brown Limited issued GH¢2.5 million of 6% discounted debenture at GH¢98 per 100 nominal. The debentures are redeemable in 5 years from now at GH¢2 premium over nominal value. They are currently quoted at GH¢80 per debenture ex-interest. Brown Limited pays corporate tax at the rate of 30%.

You are required to calculate cost of debt after tax. **(4 marks)**

**(Total: 20 marks)**

## QUESTION THREE

Plainview Farms Limited is considering acquiring Cottage Industries Limited. The extracts of the financial statement of the two companies is as follows:

**Statement of Financial Position**

| | **Plainview Farms Ltd** | **Cottage Industries Ltd.** |
|---|---|---|
| | **GH¢'m** | **GH¢'m** |
| **Net Assets** | **6,300** | **1,892** |
| Equity Capital | 2,000 | 1,000 |
| Income Surplus | 4,300 | 892 |
| | **6,300** | **1,892** |

**Income Statement**

| | **GH¢'m** | **GH¢'m** |
|---|---|---|
| Profit after tax | 800 | 300 |
| Dividend | (600) | (100) |
| Retained earnings | **200** | **200** |

The two companies retain the same proportion of profits each year and this is expected to continue into the future. Plainview Farms Limited return on investment is 16%, while that of Cottage Industries Limited is 21%. One year after

the post-acquisition period, Plainview Farms will retain 60% of its earnings and expects to earn a return of 20% on new investment.

The dividends of both companies have been paid. The required rate of return of ordinary shareholders of Plainview Farms Limited is 12% and Cottage Industries Limited 18%. After the acquisition, the required rate of return will become 16%.

**Required:**

a) If the acquisition is to proceed immediately, calculate the;

i) Pre-acquisition market values of both companies. **(5 marks)**

ii) Maximum price Plainview Farms Limited will pay for Cottage Industries Limited. **(5 marks)**

b) As a Finance Manager in your company, you have been asked to produce an explanatory memo to Senior Management on the subject Mergers and Acquisition. Your memo should clearly outline what actions a target company might take to prevent a hostile takeover bid. **(5 marks)**

c) Drake Limited is a Ghanaian registered multi-national company with **FIVE** subsidiaries in Europe, Asia and Africa. These subsidiaries have traditionally been allowed a large amount of autonomy, but Drake Limited is proposing to centralize most of the group's treasury management operations.

**Required:**

Acting as Group Head of Finance to Drake Limited, prepare a memo suitable for distribution to Senior Management of each of the subsidiaries explaining the potential benefits of treasury centralization. **(5 marks)**

**(Total: 20 marks)**

## QUESTION FOUR

a) Booms and Bumps Limited has recently been registered as multi-national company dealing in the production and drilling of crude oil in the Oil and Gas industry. Due to uncertainties surrounding the future prospect of the industry, management has hired you as a financial consultant to conduct risk assessment about the viability of the firm. In the course of the assessment you constructed a risk register containing various risk that have the potential to affect negatively the profitability of the company.

**Required:**

Outline **THREE** basis strategies the management of the company can adopt to mitigate the impact of the risks **(3 marks)**

b) At the last meeting of the Board of Directors of Greenwich Ghana Limited, the Board resolved to establish a manufacturing facility in Asia and Europe. Briefly describe **FIVE** strategic reasons that might have informed management decision to undertake the Foreign Direct Investment (FDI). **(5 marks)**

c) The growth of globalization has created more opportunities for free movement of capital/funds, which has resulted in a global canker called "**money laundering**". There have been global efforts from governments and international institutions to combat the menace.

**Required:**

i) Describe in simple terms the concept of ***Money Laundering*.** **(2 marks)**

ii) Identify **THREE** risk-based approaches companies can adopt to combat the risk of money laundering **(4 marks)**

d) Agoro Limited has issued 75,000 equity shares of GH¢0.10 each. The current market price per share is GH¢24. The Company has decided to make a right issue of one (1) new equity share at a price of GH¢16 for every four (4) share held.

**Required:**

i) Calculate the theoretical ex-right price per share **(2 marks)**

ii) Calculate the theoretical value of the right **(1 mark)**

iii) Mr. Crentsil currently holds 1,000 shares in Agoro Limited, show the effect of the rights issue on his wealth assuming he sells the entire right. **(2 marks)**

iv) Calculate the effect if Mr. Crentsil does not take any action and ignores the right issue. **(1 mark)**

**(Total: 20 marks)**

## QUESTION FIVE

Crave Cottage Industry Limited has been in successful business for the past ten years. Following the retirement of its first Managing Director who also doubled as the majority shareholder, poor management has plunged the company into losses which is potentially eroding the capital of the company. The Statement of Financial Position of the company as at 31st December, 2015 is given below;

| **Assets** | **GH¢'m** |
|---|---|
| Furniture & Fittings | 34,500 |
| Motor Vehicle | 55,500 |
| Goodwill | 39,000 |
| Land & Building | 23,400 |
| Stocks | 15,300 |
| Debtors | 10,650 |
| Cash in Hand | 750 |
| | **179,100** |
| | |
| **Liabilities:** | |
| Sundry Creditors | 27,000 |
| Bank Overdraft | 45,750 |
| 18% Debentures | 30,000 |
| | **102,750** |
| **Net Assets** | **76,350** |
| | |
| **Financed by:** | |
| Stated Capital | 97,500 |
| Capital Surplus | 36,000 |
| Income Surplus | (57,150) |
| | **76,350** |

**Additional Information:**

i) The realizable values of the assets are as follows:

| | **GH¢'m** |
|---|---|
| Furniture & Fittings | 27,000 |
| Motor Vehicle | 67,500 |
| Land & Building | 26,250 |
| Stocks | 10,950 |
| Debtors | 7,500 |

ii) The stated capital of the company is made up as follows:-

| | **GH¢'m** |
|---|---|
| 2,000,000 ordinary shares of no par value - | 67,500 |
| 500,000 15% cumulative Preference shares of no par value- | 30,000 |

iii) The cost of winding up is estimated at GH¢21,300 million.
iv) The bank overdraft and 18% debentures are secured by a floating charge on assets of the company.
v) The preference dividends and interest on debentures are two years in arrears. However, no provision has been made for those in the financial statement.
vi) The ordinary shareholder have decided to inject GH¢60,000 million in consideration for a new issue of equity shares if the capital reconstruction scheme is accepted.
vii) Although, it is the company's policy to amortize intangible assets over five years, the Board of Directors nonetheless have decided to maintain the Goodwill indefinitely in the books due to the persistent losses in contravention of the company's policy. Goodwill has been outstanding since 2009. The current financial state of the company negates the value and the existence of the goodwill.
viii) The preference shareholders have indicated their willingness to bear any deficit resulting from the reconstruction in proportion to their interest in the stated capital. In return, their stake would be converted into equity and would be permitted to make nomination to key management positions including chairing the board for the first five years. If these proposals are accepted, the preference shareholders will contribute further equity of GH¢60,000 million. They have also agreed to waive 50% of the arrears of dividend and convert the rest into equity.
ix) Any arrears of preference dividends are to form a first charge upon any surplus on winding up.
x) The original ordinary shareholders had decided to waive any dividend due to them during the first two years in order to put the company on sound financial ground.
xi) The company is expected to improve its cash flow positon and commence dividend payment if the additional capital of GH¢120,000 million is introduced.

**Required**:

a) Calculate the amount available if Crave Cottage Industry Limited is liquidated and its distribution. **(7 marks)**
b) Calculate the maximum possible loss of Crave Cottage Industry Limited and its allocation to Preference Share Capital and Ordinary Share Capital. **(6 marks)**
c) Calculate the Bank/Cash balance of Crave Cottage Industry Limited after the re-organization. **(2 marks)**
d) Calculate the new stated capital for the company after the reorganization. **(2 marks)**

e) Prepare a Statement of Financial Position of Crave Cottage Industry Limited showing the position immediately after the scheme has been put in place. **(3 marks)**

**(Total: 20 marks)**

**ADVANCED FINANCIAL MANAGEMENT SCHEME**

**QUESTION ONE**

a) (i) **Average Return Stock A**

(-10% + 18% + 39% + 14% + 33%)/5 = 18.8% ***1.5 marks***

Stock B

(-3% + 21% + 44% + 4% + 28%)/5 = 18.8% ***1.5 marks***

(ii) **The realized rate of Return/Average return of portfolio**

$R_A$ (% of stock A) + $R_B$ (% of stock B), then average these yearly return.

| | | | |
|---|---|---|---|
| 2010 | -10% + -3%/2 | = | - 6.5% |
| 2011 | (18% + 21%)/2 | = | 19.5% |
| 2012 | (39% + 44%)/2 | = | 41.5% |
| 2013 | (14% + 4%)/2 | = | 9% |
| 2014 | (33% + 28%)/2 | = | 30.5% |
| | | | 94/4 = **18.8%** |

*Alternatively*

$= aR_A + bR_B$

= (0.5*18.8) + (0.5*18.8)

= 9.4 + 9.4 = **18.8%** ***3 marks***

(iii) **Standard Deviation**

**Stock A**

$$\sqrt{A} \quad \sqrt{\frac{(-10\%-18.8)^2 + (18-18.8)^2 + (39\%-18.8)^2 + (14\%-18.8)^2 + (33-18.8)^2}{5-1}}$$

$$= \frac{\sqrt{1462.80}}{4} \quad = \quad 19.12\%$$

***1.5 marks***

**Stock B**

$$\sqrt{B} \quad \sqrt{\frac{(-3-18.8)^2 + (21-18.8)^2 + (44-18.8)^2 + (4-18.8)^2 + (28-18.8)^2}{5-1}}$$

$= \frac{\sqrt{1418}}{4}$ = 18.83% ***1.5 marks***

$$\sqrt{AB} = \frac{\sqrt{(6.5-18.8)^2 + (19.5-18.8)^2 + (41.5-18.8)^2 + (9-18.8)^2 + (30.5-18.8)^2}}{5-1}$$

$= \frac{\sqrt{1388.8}}{4}$ = 18.63 ***1 mark***

b) Since the Ghanaian Company has an asset of USD$75,000 and a liability of USD$264,000, maturing at the same time (3 months) they can be used to offset each other to leave a net liability of USD189,000.

**i) Forward Market Hedge**

Offset $254,000 - $75,000 = USD$189,000 ***1 mark***

Buy USD$189,000 3 months forward

Cost = $189,000 ÷ 0.9545 = GH¢198,009 payable in 3 months ***1 mark***

**ii) Money Market Hedge**

- Since the company has a US$ liability if needs to create a matching US$ assets
- Place US Dollar on deposit for 3 months at an interest rate of 2.7%
- Accumulate capital at the end of 3 months to the US$189,000 required
- Pay off the net liability as follows

Deposit US$ (1 + 0.025) = USA$189,000 required in 3 months ***1 mark***

Amount to deposit now:

US$189,000 ÷ 1.025 = 184,390 ***1 mark***

The Ghanaian company will have to buy these US$184,390 on the spot market.

Cost = US$184,390 ÷ 0.9850= GH¢187,198 payable now ***1 mark***

iii) Best Hedge Market:

| | Now | 3 months Time | |
|---|---|---|---|
| | | (GH¢198,009) | ***-0.5mark*** |
| Forward Market | | | |
| Money Market: | (GH187,198) | | ***-0.5mark*** |

Compound cost of the Money Market Hedge = 187,198 (1+0.0325)

= GH¢193,282 *1 mark*

As this is lesser amount than the Forward Market Hedge, it can be concluded that the money market hedge is the least cost method of hedging the company's net liability.

**Total: 20 Marks**

**QUESTION TWO**

a) (i) Computation of NPV for both projects Using WACC

**Oil & Gas**

| Year | Cashflow | Discount Factor | PV |
|---|---|---|---|
| | GH¢'000 | @17% | GH¢'000 |
| 0 | (400) | 1 | (400) |
| 1 | 85 | 0.855 | 72.68 |
| 2 | 175 | 0.731 | 127.93 |
| 3 | 160 | 0.624 | 99.84 |
| | | NPV | (99.55) |

**Hotel & Tourism**

| Year | Cashflow | Discount Factor | PV |
|---|---|---|---|
| | GH¢'000 | @17% | GH¢'000 |
| 0 | (405) | 1 | (405) |
| 1 | 180 | 0.855 | 153.90 |
| 2 | 195 | 0.731 | 142.55 |
| 3 | 150 | 0.624 | 93.60 |
| | | | (14.95) |

(ii) Projects NPV using CAPM

**Oil & Gas**

| Year | Cashflow | Discount Factor | PV |
|---|---|---|---|
| | GH¢'000 | @26% | GH¢'000 |
| 0 | (400) | 1 | (400) |
| 1 | 85 | 0.794 | 67.49 |
| 2 | 175 | 0.630 | 110.25 |
| 3 | 160 | 6.499 | 79.84 |
| | | NPV | (142.42) |

**Hotel and Tourism**

| Year | Cashflow | Discount Factor | PV |
|---|---|---|---|
| | GH¢'000 | @17% | GH¢'000 |
| 0 | (405) | 1 | (405) |
| 1 | 180 | 0.781 | 140.58 |
| 2 | 195 | 0.610 | 118.95 |
| 3 | 150 | 0.477 | 71.55 |
| | | NPV | (73.92) |

(iii) In view of the high risk inherent in the Oil and Gas Project, the Hotel and Tourism project should be selected.

**Workings**

Cost of Capital Using CAPM

Oil & Gas

$R_s = R_f + B(R_m - R_f)$

$20\% + 1.2(25 - 20)$

$20\% + 6\% =$ **26%**

Hotel and Tourism

$R_s = R_f + B(R_m - R_f)$

$20\% + 1.6(25\% - 20\%)$

$20\% + 8\% =$ **28%**

Cost of Capital Using WACC

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

$$g = {}^{n-1}\sqrt{\frac{d_1}{do}} - 1$$

$$= {}^{5-1}\sqrt{\frac{0.35}{0.28}} - 1$$

$$= \left[\frac{0.35}{0.25}\right]^{1/4} - 1$$

= 0.057 or 5.7%

$$Ke = \frac{0.35\,(1.057)}{3.20} + 0.057 = 0.173 = \mathbf{17\%}$$

**(b)**Foreign Exchange risk is the probability that a company will be unable to adjust its prices and cost to offset changes in exchange rates. It also means the risk that the domestic currency value of cash flows denominated in foreign currency may vary due to changes in the foreign exchange rate.

**Ways of heading against Foreign Exchange Risk**

1. **Forward Contract**
   This involves a contract, which is tailor-made (taken out for the exact amount of currency required. The future exchange rate is fixed at the time the contract is entered in to with the bank. The cost is then determined by the forward rate quoted by the bank.
2. **Future Contract**
   This offers the opportunity to buy/sell currency in standard amount of a limited number of currencies at a specified time and rate.
3. **Lead/Lag Payment**
   In the case of paying for goods in a foreign currency, it is possible to pay for the goods in advance and thereby fix the exchange rate at the spot rate.
4. **Currency Options**
   Here, the firm has the possibility of buying (call) or selling (put) currency at an agreed rate usually at any time within a specified period.

***1 mark for any one valid point (1 x 4pts)*** ***4 marks***

**(c)**

1) **Cost of Debt:**

| | | | | % |
|---|---|---|---|---|
| After tax Interest | = | 6% (1 – 0.3) | = | 4.2 |
| Capital gain ¢102 - ¢80 ÷ 5 years | | | = | 5.5. |
| | | | | **9.7** p.a. |

**Estimating cost of Debt using IRR Approach**

$$PV = (\text{Annuity x Interest}) + \frac{R}{(1+r)^n}$$

**First NPV at 10%**

$$(80) = (3.781 \times 4.2) + \left(\frac{102}{(1.10)^5}\right)$$

$$\underline{79.25} = 15.92 + 63.33$$

NPV **-0.75**

**Second NPV at 8%**

$$(80) = (3.993 \times 4.2) + \left(\frac{(102)}{(1.08)^5}\right)$$

$$\underline{86.19} = 16.77 + 69.42$$

NPV **6.19**

$$IRR = a + \frac{NPVa}{NPVa + NPVb}(b - a)$$

$$= 8\% + \frac{6.19}{6.94}(10\% - 8\%)$$

$$= \mathbf{9.8\%}$$

**Alternatively**

$$K_d = \frac{i + \frac{(m-d)}{n}}{(2V_d+m)/3} * 100$$

Where $i$= Interest = 4.2 m= redemption= 102 $V_d$= value now or cost=80
n= number of years to maturity= 5

$$K_d = \frac{4.2 + \frac{(102-80)}{5}}{(2*80+102)/3} * 100 = 8.6/87.33 * 100$$

=0.098*100 = **9.8%**

**a)** (i)

**Market Value of Plainview Farm Limited:**

Using the Gordon's growth model: g = rb

| Where, | r | = | return on investment | |
|---|---|---|---|---|
| | b | = | retention ratio | |
| | g | = | rb, r = 0.16, b = 0.25 | |
| | g | = | 0.16 x 0.25 = 4% | ***1*** |

Future Dividend in 1 year

= D1 (1 + g)

= 600 (1.04) = GH¢624million ***0.5***

Market Value (MV) = $\frac{d}{r-g}$ = $\frac{GH¢624m}{0.12 - 0.04}$ = GH¢7.8billion ***1***

**Market Value of Cottage Industries Limited:**

r = 0.21, b - $^2/_3$

s = 0.21 x $^2/_3$ = 14% ***1***

Future Dividend n 1 year

100 (1.14) = GH¢114 million ***0.5***

Market Value (MV) = $\frac{d}{r-g}$ = $\frac{GH¢114m}{0.1\,8 - 0.14}$ = GH¢2,850 billion - ***1***

**(i) Maximum Price of acquisition**

| | GH¢m | |
|---|---|---|
| Plainview Farm Limited earning in 1 year | | |
| GH¢800 million x 1.04 | 832 | ***1*** |
| Cottage Industries Limited | | |
| GH¢300 million x 1.14 | 342 | ***1*** |
| | 1,174 | |

Dividend in 1 year GH¢1,174 million @ 40% = GH¢469.60m ***0.5***

If r = 0.2 and b = 0.6

g = 0.2 x 0.6 = 0.12 ***0.5***

Post-Acquisition Market Value:

MV = GH¢469.6m = GH¢11740 billion ***1***

0.16 – 0.12

Maximum Price = GH¢11,740billion - GH¢2,850 billion

Payable for Cottage Industries Limited = GH¢8,890 billion ***1*** .

**(b) Takeover Defences**

**White Knight**

A situation in which the target company looks for a friendly company where offer is more appealing for the takeover bid.

**Shark Repellant**

This involves amending the company's memorandum and articles of association in such a way that makes the takeover difficult for the acquiring company. An example is increasing the margin of majority votes required at an Annual General meeting called to approve such a takeover.

**Pac-man Defence**

An anti-takeover strategy in which the target company tries to buy up the share of the acquiring company.

**Golden Parachutes**

This refers to provision in the executives' employment contract that call for payment of severance pay or other compensation should they lose their job as a result of a successful takeover.

**Poison-Pill**

A strategy sometimes employed by target companies in a takeover bid to reduce the attractiveness of their securities/assets to the prospective acquiring firm. This is often done by enlarging the outstanding shares of a target company through a new issue of shares to its shareholders at a discount to the market price, thus making the takeover quite expensive to the prospective acquiring firm

***1 mark for each valid point (1 X 5pts) Maximum*** ***5 marks***

(c)

To: All Directors of Foreign Subsidiaries
From: Group Finance Director
Subject: Benefits of Treasury Centralisation

It is proposed that the group will shortly centralize its treasury functions. Centralization of group treasury management function means that the decisions regarding currency management, short term investment and borrowing and financial risk management will be taken centrally rather than at subsidiary level.

This will permit significant efficiency, improvements and cost savings. The major benefits will be as follows;

i. To enhance group decision making – Decisions will be taken in line with the tactical and strategic objectives of the group as a whole, rather than by individual subsidiaries which might from time to time have different objectives.

ii. Foreign exchange risk management – a central treasury can better appreciate the total foreign exchange exposure position of the group. Netting and matching of receivables and payables in different currencies will be possible allowing transactions cost savings as only the net amounts needed, be hedged or transmitted.

iii. Better knowledge will exist of total debt and cleared bank balances. This will facilitate interest rate hedging. Surplus cash from one subsidiary will be lent to other subsidiaries of relatively favorable rates.

iv. High Investment Returns – Cash may be aggregated and invested at better rates and borrowing may be possible at favourable rate, including from international markets to which individual subsidiaries would not have direct access.

v. Transfer prices will be centrally set to try to minimize the group tax bill.

vi. A centralized treasury functions with effective internal controls, will be able to prevent the possibility of major financial losses.

vii. A centralized treasury will be able to collect and analyze relevant economic and financial information and supply such information to the benefit of all subsidiaries. (***1 mark for each one valid point (1 X 5pts) Maximum***

**Total: 20 Marks**

**QUESTION FOUR**

a) Risk can be managed by the following ways:
   1. **Hedgin**g – this is a strategy to mitigate exposure to risk by undertaking equal and opposite transactions. An example is currency risk and interest rate risk. It involves implementation of action to ensure certainty of business outcome.
   2. **Diversification** – This involves strategies to avoid risk by spreading funds over a portfolio of investments. A portfolio of different investments with varying degrees of risk helps to reduce the overall risk of the business. This helps to prevent the concept of "putting all eggs in one basket".
   3. **Risk Mitigation** – This involves implementation of control to avoid investments in projects whose risk is higher than the shareholders required rate of return.

   ***1 mark for each valid point (1 x 3 points)*** ***3 marks***

b) A company could undertake foreign manufacturing establishment as a strategy to defend existing business due to the following;
   1. Demand for local manufacture in foreign country;
   2. Reduction in cost of transportation (cost savings);
   3. Government policy on tariffs, taxes, import controls and legislations;
   4. Challenges with agents and licenses;
   5. The need to protect patents and intellectual property;
   6. Protection of parent company shareholders against recession;
   7. The search for profitable uses for under-employed resources;
   8. The need to internationalize to match competitors, suppliers and customers
   9. Fear of losing local market
   10. Development of global plan and strategies

***1 mark for every valid point for a maximum of 5 points (1 x 5pts)*** ***5 marks***

*c)* i. **Money Laundering** constitutes an illegal act of concealing the identities of parties to financial transactions. It is a term used to describe the process by which criminals disguise the original ownership and control of the process of criminal conduct by making proceeds appear to have been derived from a legitimate source.
***2 Marks***

   ii. **Risk-Based approach to anti money laundering** – The risk-based approach is a means of allocating supervisory resources with the effect to targeting areas of higher risk of money laundering ***1 Mark***

**Steps of risk-based approach are as follows**:

1. Identify the money laundering risk that are relevant to the business
2. Conduct detailed risk assessment on such areas as customer behavior and delivery channels.
3. Design and implement controls to manage and reduce any identified risks
4. Monitor the effectiveness of these controls and make improvements where necessary.
5. Maintain records of action taken and reasons for those action

*1 mark for each valid point for a maximum of 3 points (1 x 3pts)* *3marks*

d)

i. **Ex-right Price**

| | | ¢ |
|---|---|---|
| 4 existing shares @ ¢24 = | | 96 |
| 1 new share @ ¢16 | = | 16 . |
| 5 | | 112. |

**Ex-right Price** $= \frac{¢112}{5} = ¢22.4$ *2marks*

ii. **Theoretical Value of the right**

Ex-right Price – Right issue Price

¢22.40 - ¢16 = ¢6.40 *1mark*

iii. **Effect of holding 1,000 shares**

| | | |
|---|---|---|
| Value before right issue 1,000 share @ ¢24 = | **24,000** | *1 mark* |
| **Value after right issue:** | | |
| Value of shareholders right issues 1,000 @ ¢22.40 | 22,400 | |
| Add sales proceeds 1000 ÷ 4 = 250 @ 6.40 | 1,600 | |
| | **24,000** | *1mark* |

Effect = NIL

iv. **Effect of No Action**

| | ¢ | |
|---|---|---|
| Value before R.I 1000 @ ¢24 | 24,000 | |
| Less value of shares after RI 1000 @22.40 | (22.400) | |
| Loss of wealth to shareholder | **1,600 .** | *1mark* |

***This is a clear indication that a shareholder should exercise his/her right or sell the shares when right issues are made. Taking no action will lead to loss of value of wealth.***

**Total: 20 Marks**

**QUESTION FIVE**

(a) Calculation of Amount Available if the Company is liquidated and its allocations

| **Assets** | | **NVR** | |
|---|---|---|---|
| | **GH¢'m** | **GH¢'m** | |
| Furniture Fittings | | 27,000 | |
| Motor Vehicle | | 67,500 | |
| Land & Building | | 26,250 | |
| Stocks | | 10,950 | |
| Debtors | | 7,500 | |
| Cash in Hand | | 750 | |
| | | ----------- | |
| Proceeds from Sales | | **139,950** | |
| ***1.5*marks** | | | |
| **Distributed as follows;** | | | |
| Winding up expenses | 21,300 | | |
| 18% Debentures | 30,000 | | |
| Bank Overdraft | 45,750 | | |
| Sundry Creditors | 27,000 | | |
| Debenture Interest (0.18 @ 3000 x 2) | 10,800 | **134,850** | |
| Amount available to Shareholders | | **5,100** | ***1.5*marks** |

Analysis

| | | |
|---|---|---|
| Preference share Dividend (15% @ 30,000 @ 2 years) | 9,000 | |
| Less Amount available | (5,100) | |
| Loss to shareholders | **3,900** | ***1* mark** |

This means that:

(1) If the company had been liquidated, the preference shareholders will lose GH¢3,900 million of the arrears of preference dividends in addition to the total amount of stated capital.

(2) Ordinary shareholder would receive nothing

**b)** Calculation of Maximum Possible loss and its Allocation

| Assets | NBV | GCV | Max Loss/gains |
|---|---|---|---|
| | GH¢'m | GH¢'m | GH¢'m |
| Furniture & Fitting | 34,500 | 27,000 | 7,500 |
| Motor Vehicle | 55,500 | 67,500 | (12,000) |
| Goodwill | 39,000 | - | 39,000 |
| Land & Building | 23,400 | 26,250 | (2,850) |
| Stock | 15,300 | 10,950 | 4,350 |
| Debtors | 10,650 | 7,500 | 3,150 |
| Income Surplus | - | - | 57,150 |
| Capital Surplus | | | (36,000) |
| Debenture Interest | | | 10,800 |
| Preference Dividend (9000 @ 50%) | | | 4,500 |
| | | | ------------ |
| | | | <u>**75,600.**</u> |
| | | | **2 marks** |

Analysis

Allocation of losses 30:67.5

| | | | |
|---|---|---|---|
| Preference Shareholders $^{30}/_{97.5}$ @ 75,600 | = | 23,262 | ***0.5mark*** |
| Ordinary shareholders $^{67.5}/_{97.5}$ @ 75,600 | = | 52,338 | ***0.5mark*** |

If the reconstruction takes place, the total maximum loss would be GH¢75,600 million. Out of this, preference shareholder will suffer a loss of GH¢23,262 million whilst the ordinary shareholder would have to bear GH¢52,338 million. **1 mark**

**c)** Analysis of Bank/Cash Balance

| <u>Receipts</u> | <u>GH¢'m</u> | | |
|---|---|---|---|
| Balance b/f | 750 | | |
| Preference shares | 60,000 | | |
| Ordinary shares | 60,000 | | |
| | ----------- | 120,750 | **1mark** |
| | | | |
| Payments | | | |
| Balance b/f | 45,750 | | |
| Debenture Interest | 10,800 | | |
| Sundry Creditors | 27,000 | 83,550 | **1mark** |
| | ---------- | ---------- | |
| **Positive Bank balance** | | <u>**37,200**</u> | |

d)

**New Slated Capital A/C**

| | Ordinary Shares GH¢ | Preference Shares GH¢ | | Ordinary Shares GH¢ | Preference Shares GH¢ |
|---|---|---|---|---|---|
| Capital Reductions | 52,338 | 23,262 | Balance b/f | 67,500 | 30,000 |
| Transfer to Ord. shares | | 71,238 | Cash | 60,000 | 60,000 |
| New Equity | 146,400 | | Pref. Dividend | - | 4,500 |
| | | | Transfer | 71,238 | |
| | **198,738** | **94,500** | | **198,738** | **94,500** |

**2marks**

e) **Crave Cottage Limited**

**Reconstructed Balance Sheet as at 31st December, 2015**

| **None current assets** | **GH¢'m** | **GH¢'m** | |
|---|---|---|---|
| Land & Printing | | 26,250 | |
| Furniture & Fittings | | 27,000 | |
| Motor Vehicle | | 67,500 | |
| | | **120,750** | *1mark* |
| **Current Assets** | | | |
| Stocks | 10,950 | | |
| Debtors | 7,500 | | |
| Cash & Bank Balance | 37,200 | | |
| | | 55,650 | |
| | | **176,400** | *1mark* |
| **Financed by:** | | | |
| Stated Capital | | 146,400 | |
| 18% Debentures | | 30,000 | |
| | | **176,400** | *1mark* |

**Total: 20 marks**