MAY 2017 PROFESSIONAL EXAMINATIONS
ADVANCED FINANCIAL MANAGEMENT (PAPER 3.3)
QUESTIONS & MARKING SCHEME

QUESTION ONE

a) In the last couple of years, the Cedi has depreciated substantially against the US Dollar. This has had an adverse effect on the financial performance of most of the multinational companies in Ghana.

Required:
As a Financial Adviser of your organization, a multinational company which is involved in the export trade, recommend actions to be taken to minimize the loss on foreign currency transactions. **(5 marks)**

b) BigDaddy Ltd, a drug development company, has gained drug production permission for the manufacturing of a drug for Ebola which will be developed over a three year period. The resulting drug sales less costs have an expected net present value of GH¢4 million at a cost of capital of 10% per annum. BigDaddy Ltd has an option to acquire the ownership of the drug at an agreed price of GH¢24 million, which must be exercised within the next two years. Immediate preparatory and research would be risky as the project has a volatility attaching to its net present value of 25%.

One source of risk is the potential for absolute control over Ebola by people taking good care of themselves. Within the next two years, the World Health Organisation will make a pronouncement on whether the disease will be eradicated or not. The risk free rate of interest is 5% per annum.

Required:

i) What are the ***variables*** that determine the value of a real option for BigDaddy Ltd? **(5 marks)**

ii) Estimate the value of the option to delay the start of the project for two years using the ***Black Scholes option pricing model*** and comment upon your findings. Assume that the World Health Organisation will make its announcement about the potential of eradication of Ebola at the end of the two-year period. **(10 marks)**

(Total: 20 marks)

QUESTION TWO

a) ABE has surplus cash which can be invested for at least five years. The company has consulted you to help them choose an investment that gives the shortest recovery period. The company presented the information on two types of bonds as follows;

Bond	Redemption	Nominal Value GH¢	Redemption value	Coupon Rate	Price GH¢
A	redeemable in 5 years	1,000	At par	7.00	950
B	redeemable in 6 years	1,000	At 5% premium	7.50	1,010

Required:

Use ***Macaulay Duration method*** to advise ABE on the best Bond option to select for their investment. **(12 marks)**

b) Oheneba Limited is considering the acquisition of a concession in the Brong Ahofo region to enable it start a quarry business. The average industry beta is 1.6 with an equity to debt ratio of 2:1.

The following information was extracted from the books of Oheneba Limited

Income statement

	GH¢'000
Profit before tax	42,000
Taxation (30%)	(12,600)
Profit after tax	**29,400**

Statement of Financial Position

Net Fixed Assets	102,000
Working Capital	33,000
	135,000
Financed By	
Share Capital	85,000
Retained earnings (Income Surplus)	15,000
	100,000
Long Term Debt	35,000
	135,000

You are also informed that the Long Term Debt of the company is considered risk free with a gross redemption yield of 10% and the beta coefficient of the company's equity is 1.2 while the average return on the stock market is 15%.

Required:

i) Determine the cost of capital to apply for the appraisal of the quarry if Oheneba Limited will maintain its capital structure after the implementation of the quarry project. **(5 marks)**

ii) Determine the cost of capital to apply if the company will change its capital structure to 20% debt and 80% equity. (**3 marks)**

(Total: 20 marks)

QUESTION THREE

a) Jacobs Limited and Idowu Company Limited both manufacture and sell auto parts. The summarised profit and loss accounts of the two companies for 2014 are as follows:

	Jacobs Ltd	**Idowu Co Ltd**
	GH¢000	**GH¢000**
Sale revenue	1,500	800
Operating expenses	(800)	(620)
Profit	700	180

Each company has earned a constant level of profit for a number of years, and both are expected to continue to do so. The policy of both companies is to distribute all profits as dividend to ordinary shareholders as they are earned. Neither company has any fixed interest capital. Details of the ordinary share capital of the two companies are as follows:

	Jacobs Ltd	**Idowu Co Ltd**
	GH¢000	**GH¢000**
Share capital:		
Ordinary shares of Gh¢1 each		
Authorised	2,500	2,000
Issued	2,000	1,000

The ordinary shares of Jacobs Ltd have a current market value of GH¢3.50 each ex div. and those of Idowu Co Limited, a current market value of GH¢1.50 each ex div.

The directors of Jacobs Limited are considering submitting a bid for the entire share capital of Idowu Co Limited. They believe that, if the bid succeeds, the combined sales revenue of the two companies will increase by GH¢60,000 per annum and savings in operating expenses, amounting to GH¢50,000 per annum, will be possible. Part of the machinery at present owned by Idowu Co Limited would no longer be required and could be sold for GH¢100,000. Furthermore, the directors of Jacobs Limited believe that the takeover would result in a reduction to 9% in the annual return required by the ordinary shareholders of Idowu Co. Limited.

Required:

On the basis of the above information calculate:

i) The maximum price that Jacobs Ltd should be willing to pay for the entire share capital of Idowu Co Limited. **(6 marks)**

ii) The minimum price that the ordinary shareholders in Idowu Co Ltd should be willing to accept for their shares. **(4 marks)**

b) Assume that the takeover price is agreed at the figure you have calculated in (a) (ii) above, and that the purchase consideration will be settled by an exchange of ordinary shares in Idowu Co Ltd for the ordinary shares of Jacobs Ltd, show how the entire benefit from the takeover will accrue to all the present shareholders of Jacobs Ltd. **(6 marks)**

c) Discuss briefly any other factors that the directors and shareholders of both companies might consider in assessing the worthwhileness of the proposed takeover. **(4 marks)**

(Total: 20 marks)

QUESTION FOUR

a) The government of Ghana has been borrowing in the international financial market by issuing "Eurobonds" to finance projects in Ghana. There has been a keen debate on the borrowing by the government.

Required:

i) As a Finance officer, explain what Eurobond is all about. **(3 marks)**

ii) Identify **THREE** advantages that have been cited for government using Eurobonds. **(3 marks)**

iii) Evaluate **FOUR** problems associated with the use of international borrowing, especially Eurobonds in Ghana. **(4 marks)**

b) There are many possible reasons why management would wish to restructure a company's finances. A reconstruction scheme might be agreed when a company is in danger of being put into Liquidation.

Required:

i) Distinguish between a ***leveraged buy-out*** and ***leveraged recapitalisation***. **(4 marks)**

ii) What are the **THREE** main types of reconstruction and describe them briefly. **(3 marks)**

iii) Describe the procedures that should be followed when designing a financial reconstruction scheme . **(3 marks)**

(Total: 20 marks)

QUESTION FIVE

a) The Board of Directors of Aduana Enterprise has approved an expansion project which will require cash inflow of GH¢10 million. The investment duration will be 6 months and management is considering taking a fixed interest rate loan from its bankers. The loan will be required in three months from the date of board's approval.

Management of Aduana is considering hedging its risk exposure using a Forward Rate Agreement (FRA). The 3-9 months' FRA rate at the transaction date was 5%.

Required:
If the spot rate at the settlement date is 8%, calculate the **present value** of the following

i) Settlement value **(3 marks)**
ii) Loan amount required **(2 marks)**
iii) Interest on loan **(2 marks)**
iv) Effective interest rate **(3 marks)**

b) One of the key considerations for multinational companies is to decide on the price at which goods and services are transferred from one member of a group to another.

Kofas Ltd has been operating in four countries: Ghana, Nigeria, UK and USA. The parent company and the subsidiaries have decided to use transfer pricing policy.

Required:
You have been approached as a consultant to advise on the internal and external factors that will facilitate the transfer of goods and services from one member of the group to another. **(10 marks)**

(Total: 20 marks)

MARKING SCHEME

QUESTION ONE

a)

Actions to be taken to minimize the loss on foreign currency transactions

- **The usage of a forward exchange contract.** This is a contract, usually between a bank and its customer, for the purchase/sale of a specified amount of a stated foreign currency at an exchange rate fixed at the time the contract is made for performance at a future date agreed upon at the time of the contract.

- **To borrow foreign currency**. A Ghanaian company that has recognized the need to pay a certain amount in US dollars in two months' time, can borrow that amount of US dollars now, thereby avoiding and reducing translation/conversion risks.

- **To insert protection clauses.** The exporter can incorporate a clause in the contract of sale, to adjust the selling price, if the exchange rate moves outside an agreed range. Also additional charges may be made as a result of conversion or translation changes which may be agreed to be borne by the importer.

- **Export factoring**. Where the exporter raises foreign finance through the usage of an international factor.

- **To operate a domiciliary account.** The company in this case maintains an account in a Ghanaian bank, but denominated in the desired foreign currency. Proceeds of export sales can then be used through this account to settle future commitments.

- **Matching and Netting currencies.** The idea here is to match receipts and payments in the foreign currency. In this case related amounts are offset in foreign currency if they fall due within the same time period.

- **Incorporating a clause** in the export contract which will specifically allow or disallow fluctuations in exchange rates. This is slightly different from protection clauses, since the adjustment is done on the exchange rate for payment especially in local currency.

- Foreign Currency Options.
- Foreign Currency Swaps
- Foreign Currency Futures
- **Discounting** export bills or invoices with foreign finance houses.
- **Negotiation** of bills of exchange payable or discountable abroad.

(Any 5 points for 5 marks)

b) i)

variables	Explanation
Exercise price (P_e)	● For most real options (e.g. option to expand, option to delay), the capital investment required can be substituted for the exercise price. These options are examples of call options. ● For an option to abandon, we use the salvage value on abandonment. This is an example of a put option.
Value of the underlying asset (e.g. share price) (P_a)	● It is usually taken to be the PV of the future cash flows from the project (i.e. excluding any initial investment). ● This could be the value of the project being undertaken for a call option (e.g. option to expand, option to delay), or the value of the cash flows being foregone for a put option (e.g. option to abandon).
Time to expiry (t)	● This is the time to expiry of the real option.
Volatility (s)	● The volatility of the underlying asset (for real options the future operating cash flows) is measured using industry sector risk.
Risk-free rate (r)	● We use the risk-free rate for real options. ● However, some argue that a higher rate should be used to reflect the extra risks when replacing the share price with the PV of future cash flows.

(1 mark for each point, maximum of 5 points)

ii)

This is a straightforward application of the Black and Scholes option pricing model. Each of the input components is stated in the question:

Current price = Present Value of the Project = (24+4) = GH¢28 million
Exercise price = capital expenditure = GH¢24 million
Exercise date = 2 years
Risk free rate = 5%
Volatility = 25%

Using the formula as specified:
Value = $P_a N(d_1) - P_e N(d_2) e^{-rt}$
Where:

$$d_1 = \frac{\ln\left(\frac{P_a}{P_e}\right) + \left(r + 0.5s^2\right)t}{s\sqrt{t}}$$

$$d_2 = d_1 - s\sqrt{t}$$

And
P_a = current price of underlying asset (e.g. share price)
P_e = exercise price
r = risk-free rate of interest
t = time until expiry of option in years
s = volatility of the share price (as measured by the standard deviation expressed as a decimal)

N(d) = equals the area under the normal curve up to d (see normal distribution tables)
e = 2.71828, the exponential constant

d_1 = $\frac{\text{In}(28/24) + (0.05 + 0.5 \times 0.25^2) \times 2}{0.25\sqrt{2}}$

= 0.8956 =0.90 **(3 marks)**

d_2 = $d_1 - s\sqrt{t}$

= $0.8956 - 0.25\sqrt{2}$

= 0.5421 =0.54 **(2 mark)**

The areas under the normal curves for these two values are N (d_1) = 0·8147 and N (d_2) = 0·7061.

Using the derived values for N(d_1) and N(d_2) the value of the call option on the value represented by this project is as follows:

Call option = $0·8147 \times 28 - 0·7061 \times 24 \times e^{-·05 \times 2}$
=22.8452-16.9296 x 0.9048
=22.8452-15.3179
= GH¢7·53 million **(3 marks)**

This implies that at the current time the project has a value equal to its net present value plus the value of the call option to delay, i.e., GH¢11·53 (7.53+ 4) **(2 mark)**

(Total: 20 marks)

QUESTION TWO

a) Yield to Maturity for Bond A

$$= \frac{l + \left(\frac{m - vd}{n} \right)}{(2vd + m)/3}$$

I= 7% X 1,000 = 70

m=1,000

Vd=950

n=5

$$= \frac{70 + \left(\frac{1000 - 950}{5} \right)}{(2X950 + 1000)/3} = 80/966.67 * 100 = 8.3\%$$

(2 marks)

Alternative Using IRR

Year		NCF	DF (10%)	PV	DF (8%)	PV
0	Purchase	(950)	1.0	(950)	1.0	(950)
1-5	Interest	70	3.791	265.37	3.993	279.51
5	Redemption	1000	0.621	621	0.681	681
				(63.63)		**10.51**

YTM= $= \frac{A + (NPVa)}{NPVa - NPVb} X (B - A)$

$= \frac{8 + (10.51)}{10.51 + 63.63} X (10 - 8)$

=8+ (10/74.14) x 2

=8 + 0.27 =8.27= 8.3%

Duration Computation

Year	NCF	DF (8.3%)	PV	Year	PV X year
1	70	0.923	64.61	1	64.61
2	70	0.853	59.71	2	119.42
3	70	0.787	55.09	3	165.27
4	70	0.727	50.89	4	203.56
5	1070	0.671	717.95	5	3,589.85
			948.27		**4,142.71**

Duration = PV x year / PV = 4142.71 / 948.27 = 4.4 years approximately.

Alternatively

Year	NCF	DF (8.3%)	PV	Weight	Year x Weight
1	70	0.923	64.61	0.068	0.068
2	70	0.853	59.71	0.063	0.126
3	70	0.787	55.09	0.058	0.174
4	70	0.727	50.89	0.054	0.216
5	1070	0.671	717.97	0.757	3.785
			948.27		**4.4 years**

(3 marks)

Yield to Maturity for Bond B

$$= \frac{l + \left(\frac{m - vd}{n}\right)}{(2vd + m)/3}$$

I= 7.5% X 1,000 = 75

m= (5% X 1000) +1000=1,050

Vd= 1010

n=6

$$= \frac{75 + \left(\frac{1050 - 1010}{6}\right)}{(2X1010 + 1050)/3} = 81.67/1023.33 * 100 = 7.98\%$$

Alternative Using IRR

Year		NCF	DF (10%)	PV	DF (8%)	PV
0	Purchase	(1010)	1.0	(1010)	1.0	(1010)
1-6	Interest	75	4.486	336.45	4.767	357.53
6	Redemption	1050	0.596	625.80	0.681	699.3
				(47.75)		46.83

$$\textbf{YTM} = \frac{A + (NPVa)}{NPVa - NPVb} X (B - A)$$

$$= \frac{7 + (46.83)}{46.83 + 47.75} X (9 - 7)$$

=7+ (46.83/94.58) x 2

= 7+ 0.99 =7.99= 7.98%

(2 marks)

Duration Computation

Year	NCF	DF (7.98%)	PV	Year	PV X year
1	75	0.926	69.45	1	69.45
2	75	0.858	64.35	2	128.70
3	75	0.794	59.55	3	178.65
4	75	0.736	55.2	4	220.80
5	75	0.681	51.08	5	255.40
6	1125	0.631	709.88	6	4259.28
			1,009.51		**5,112.28**

Duration = $\frac{\text{PV x year}}{\text{PV}} = \frac{5{,}112.28}{1{,}009.51}$ = 5.06 years approximately.

Alternatively

Year	NCF	DF (8.3%)	PV	Weight	Year x Weight
1	75	0.926	69.45	0.069	0.069
2	75	0.858	64.35	0.064	0.128
3	75	0.794	59.55	0.059	0.177
4	75	0.736	55.20	0.055	0.220
5	75	0.681	51.08	0.051	0.255
6	1125	0.631	709.51	0.702	4.212
			1,009.51		**5.06 years**

(3 marks)

Advise

The company should select Bond A for the Investment since it takes 4.4 years to recover the principal and interest compared to 5.06 years of Bond B. Bond B is risky.

(2 marks)

(12 marks)

b) The company is moving into a different area and to start a new business and this means the financial risk is likely to change. We need to make adjustments to account for different degrees of financial risk which requires ungearing and regearing the beta.

i) The beta of the comparable firms or the industry is first ungeared by removing the effects of its financial risk. This is computed as

$$\mathcal{Ba} = \frac{Be \times (Ve)}{Ve + Vd(1-t)}$$

$$\mathcal{Ba} = \frac{1.6 \times (2)}{2 + 1(1-0.3)}$$

$$= 3.2/2.7 = 1.19$$

(1 mark)

The ungeared beta is called "asset beta" because it reflects the business risk of the assets in that industry**.**

Once we determine the ungeared beta, we adjust it for the capital structure of the company or project that is the focus of our analysis. In other words, we "regear" the asset beta to arrive at an estimate of the equity beta for the project or company of Interest.

$$Ba = \frac{Be \times (Ve)}{Ve + Vd(1-t)}$$

We are looking for $\mathcal{Be}$ and we know that *Ba*=1.19.

$$1.19 = \frac{Be \times 100{,}000}{100{,}000 + 35{,}000(1-0.3)}$$

$$1.19 = \frac{Be \times 100{,}000}{100{,}000 + 24{,}500}$$

$$1.19 = \mathcal{Be} \times 0.803$$

$\mathcal{Be}$=1.48

(2 marks)

Having estimated a project-specific geared beta, we can use the CAPM to estimate the cost of equity. So using the CAPM, we can estimate the cost of equity.

Ke=Rf+ $\mathcal{B}$(Rm-Rf)
=10+1.48(15-10)
=10+7.4
=17.4%
We need to compute the cost of debt before we can calculate the WACC.
Kd=*i* (1-t)
=10(1-0.3)
=7%

$$\text{WACC} = \frac{(KeMVe) + (KdMVd)}{MVe + MVd} \times 100$$

$$\text{WACC} = \frac{(0.174 \times 100{,}000) + (0.07 \times 35{,}000)}{100{,}000 + 35{,}000} \times 100$$

=19850/135,000 * 100

=14.7%

(2 marks)

Where capital structure of the company in focus of our analysis is 80% equity and 20% debt.
Ba =1.19 (this will not change)

$$1.19 = \mathcal{Be} \times \frac{80}{80+20(1-0.3)}$$

$$1.19 = \mathcal{Be} \times 0.851$$

$$\mathcal{Be} = 1.4$$

Ke = 10 + 1.4(15-10)
=10+1.4(5)
=17%

We can now recalculate the WACC with Ke=17% and Kd=7%

$$\text{WACC} = \frac{(0.17 \times 80) + (0.07 \times 20)}{80 + 20} \times 100$$

$$= \frac{13.6 + 1.4}{100} * 100$$

$$= 15\%$$

(3 marks)

(Total: 20 marks)

QUESTION THREE

a)(i)

	Jacobs Ltd	*Idowu Ltd*
Total market value of equity	GH¢7m	GH¢1.5m
Cost of capital $\frac{\text{dividend}}{\text{market value}}$	10%	12%

Value of Jacobs Ltd after the acquisition:

	GH¢000
Sales = 1,500 + 800 + 60	2,360
Operating expenses = 800 + 620 – 50	1,370
Profit (dividends)	990

Present value of future earnings (dividends)

$$= \frac{\text{Earnings}}{r} = \frac{990{,}000}{0.10}$$

GH¢ million

= GH¢9.9

Add cash flows from sale of machines GH¢100,000 GH¢0.1

Total value of Jacobs Ltd after acquisition = GH¢10.0

The maximum price Jacobs Ltd should pay to acquire Idowu Ltd should be the difference between its value after and its value before the acquisition = GH¢10m - GH¢7m = GH¢3.0

(6 marks)

*(reduction in required return is by shareholders of Idowu Ltd, the examiner must have meant that the reduction in return affects Jacobs Ltd, but solution assumes the examiner is right).

ii) The minimum price that ordinary shareholders of Idowu Ltd should accept for their shares is the market value = GH¢1.5m

(4 marks)

b) Take – over price agreed at GH¢ 1.5m

Let x represent the number of new shares to be issued to Idowu Ltd.

Total number of shares in issue will become 2m + x shares

Total value of Jacobs Ltd after acquisition = 10m.

For the entire benefit from the acquisition to accrue to all the present shareholders of Jacobs Ltd, value of Jacobs shares issued to Idowu's shareholders must equal the agreed take-over price.

$$\frac{x}{2m + x} \times 10m = 1.5m$$

$$10m \times = 1.5m\,(2m + x)$$

Or 10,000,000 × = (1,500,000) × (2,000,000) + 1,500,000 ×

$$\times = \frac{1{,}500{,}000 \times 2{,}000{,}000}{8{,}500{,}000}$$

× = 352,941 shares

The take-over ratio is 35.2941 shares in Jacobs Ltd for each 100 shares held in Idowu Ltd.

The market value per share after the acquisition or take-over

$$\frac{\text{GH¢10,000,000}}{\text{2,352,941}} = \text{GH¢4.25}$$

Jacobs Ltd shareholders will have an increase in the market value of their shares from GH¢3.50 to GH¢4.25 = GH¢0.75 per share. The 2m shares would have increased by 2m × GH¢0.75= GH¢1,500,000

Current market value of Jacobs shareholders	= 2m × 4.25	= GH¢8.5m
Previous market value of Jacobs shareholders	= 2m × 3.50	= 7.0m
	gain	= GH¢1.5m

Idowu shareholders have 352,941 shares at GH¢4.25 each = GH¢1.5m (same as their previous value).

Thus the entire benefit from the take-over will accrue to the present shareholders of Jacobs Ltd.

(6 marks)

c) Factors that the directors and shareholders of both companies might consider in assessing the worthwhileness of the proposed takeover.

- The shareholders in Idowu Ltd should try to get a take-over price higher than the GH¢1.5m agreed in (b) above since this is their value and they would not benefit at all from the take-over at that price. In practice, they would have to be offered an amount in excess of their market value to induce them to sell.

- The directors of Idowu Ltd might believe from the proposal that the increase in profits after the acquisition and the sale of assets are indications that they are not effectively utilizing their assets hence may decide to put them (the assets) to better usage rather than sell them.

- The directors of Jacobs Ltd will have to reassess their estimates. How realistic is the increase in sales revenue of GH¢60,000 p.a. and at the same time a reduction in expenses of GH¢50,000. Will reduction in expenses involve retrenchment of staff and what effect will this have in morale of the remaining staff? An increase in value of GH¢3m from an investment of GH¢1.5m seems rather too high.

- What of the transaction costs of the acquisition? They have not been considered. If the take-over is resisted by the directors of Idowu Ltd or other interested buyers,

then the cost of the acquisition could be quite high. Also the position of the shareholders of Idowu Ltd should be considered since their control will be greatly reduced, eg. A holder of 51% interest in Idowu Ltd will find himself owning only 7.6% in Jacobs Ltd after the acquisition.

- Whether there would be increased market power and economies of scale and scope.

- Furthermore, Jacobs and Idowu both manufacture and sell autoparts; the attitude of the government or trade unions to forestall a monopoly situation has not been considered. Finally, in as much as the acquisition looks attractive a lot more detailed information to answer the questions raised must be obtained before a final decision is taken.

- Attitude of government and trade unions must be considered.

- Elimination of inefficiencies, use of surplus cash and increased debt capacity must be considered.

(Any 4 points for 4 marks)

QUESTION FOUR

a)

i**) A Eurobond** is denominated in a currency other than the home currency of the country or market in which it is issued. It is a bearer bond, which means it is unregistered, and payable to the person who carries it; losing a Eurobond is like losing a wallet filled with currency. These bonds are frequently grouped together by the currency in which they are denominated, such as eurodollar or euroyen bonds. Issuance is usually handled by an international syndicate of financial institutions on behalf of the borrower, one of which may underwrite the bond, thus guaranteeing purchase of the entire issue.

They are issued only by large, credit-worthy companies, development banks and state-owned corporations, and are generally unsecured.

(3 marks)

ii) Advantages cited for Using Eurobond

- Eurobonds gives issuers the opportunity to take advantage of favourable regulatory and lending conditions in other countries. Eurobonds are not usually

subject to taxes or regulations of any one government, which can make it cheaper to borrow in the Eurobond market as compared to other debt markets.

- Eurobonds create a liability in a foreign currency to match against a foreign currency asset.

- They are also extremely flexible. Most Eurobonds are fixed rate but they can be floating rate or linked to the financial success of the company or the government.

- Obtaining financing by issuing Eurobonds is often cheaper than obtaining a foreign currency bank loan.

- It is a way for companies to obtain financing in an economy where financing is hard to obtain. Issuing Eurobond gives companies wider access to the international market which they may normally not be able to access.

- Since Eurobonds are normally aimed at institutional investors and not the public, there are no advertisement costs involved and this means lower cost for the issuing firm.

(Any 3 points for 3 marks)

ii) Problems associated with the use of Eurobond

- Currency risk may arise if the investment the bonds are funding generates net revenues in a currency different from that the bond is denominated in.

- The Eurobond market has been criticized as being a haven for tax-shy investors.

- Lower overseas interest rates are not necessarily good news. Many corporate treasurers who try to take advantage of relatively low overseas interest rates often overlook the reasons why interest rates are lower overseas.

- Because Eurobonds are unsecured, companies that issue them must be internationally known and have an excellent credit rating.

- There could be huge costs, elements of credit risk with all bond issue and also the element of country risk including political risk.

(Any 4 points for 4 marks)

b) i) A leveraged buy-out is a transaction in which a group of private investors uses debt financing to purchase a company or part of a company. In a leveraged buy-out, like a leveraged recapitalization, the company increases its level of leverage, but unlike the case of leveraged capitalisations, the company does not have access to equity markets any more.

Leveraged recapitalization is a corporate strategy in which a company takes on significant additional debt with the intention of paying a large cash dividend to shareholders and/or repurchasing its own stock shares. A leveraged recapitalization strategy typically involves the sale of equity and the borrowing or refinancing of debt.

A leveraged buyout (LBO) is the acquisition of another company using a significant amount of borrowed money to meet the cost of acquisition. The assets of the company being acquired are often used as collateral for the loans, along with the assets of the acquiring company. The purpose of leveraged buyouts is to allow companies to make large acquisitions without having to commit a lot of capital.

(4 marks)

ii) **Financial reconstruction:** involves changing the capital the capital structure of the firm.

Portfolio reconstruction: involves making additions to or disposals from companies' businesses eg. through acquisition or spin-offs.

Organisational restructuring: involves changing the organizational structure of the firm.

(3 points for 3 marks)

iii)**Procedure to be followed when designing financial reconstruction scheme is as follows:**

Step 1	Estimate the position of each party if liquidation is to go ahead. This will represent the minimum acceptable payment for each group.
Step 2	Assess additional sources of finance, for example selling assets, issuing shares, raising loans. The company will most likely need more finance to keep going.
Step 3	Design a scheme for the new capital of the company that will be satisfactory to all the parties.
Step 4	Calculate and assess the new position, and also how each group has fared, and compare with step 1 position.
Step 5	Check that the company is financially viable after the reconstruction**.**

(All procedures for 3 marks)

(Total: 20 marks)

QUESTION FIVE

a)

FRA = 5%

Reference rate (Ref) = Spot rate

FRA term (d) = 3-9 (6/12)

Settlement date = 3 months

Maturity date = 6 months after settlement

Loan amount (volume)= 10,000,000

$$(i) \quad Settlement\ value = \frac{(Ref - FRA) \times Volume \times \left(\frac{d}{b}\right)}{1 + \left[Ref \times \left(\frac{d}{b}\right)\right]}$$

$$\therefore Settlement\ value = \frac{(0.08-0.05)\times 10{,}000{,}000\times\left(\frac{6}{12}\right)}{1+\left[0.08\times\left(\frac{6}{12}\right)\right]} = \frac{150{,}000}{1.04} = 144{,}230.77$$ 3 marks

$$(ii) \quad Loan\ amount\ required\ = 10{,}000{,}000 - 144{,}230.77 = 9{,}855{,}769.23$$ 2 marks

$$(iii) \quad Interest\ on\ loan\ = 9{,}855{,}769.23 \times \left(\frac{0.08\times 6}{12}\right) = 394{,}230.77$$ 2 marks

(iv) Effective interest rate

Interest paid		394,230.77	0.5 mark
Receipt from hedging (settlement amount)		144,230.77	0.5 mark
Net Interest		250,000	0.5 mark
Principal taken		10,000,000	0.5 mark
Effective interest rate $\left(\frac{250{,}000\times 12}{10{,}000{,}000\times 6}\right)$	5%		1 mark
Total			3 marks

(10 marks)

b) The following considerations are used by multinational companies for deciding transfer pricing policy:

Internal Factors

- **Overall Goal Congruence:**
  Transfer prices should help achieve overall goal congruence with regard to profit/income and customer satisfaction. When divisional managers have the authority to decide whether to buy or sell internally or on the external market, the transfer price can determine whether managers' incentives align with the incentives of the overall company and its owners. The objective is to achieve goal congruence, in which divisional managers will want to transfer product when doing so maximizes consolidated corporate profits, and at least one manager will refuse the transfer when transferring product is not the profit-maximizing strategy for the company.

- **Better Performance Evaluation**
  Transfer prices may be set between two subsidiaries of a holding company and/or two units of a corporate body in such a way to evaluate performance of each division. Transfer pricing can evaluate performance by coordinating production, sales and pricing decisions of the different divisions (via an appropriate choice of transfer prices). The transfer price will affect not only the reported profit of each center, but will also affect the allocation of an organization's resources. Transfer prices make managers aware of the value that goods and services have for other segments of the firm. Transfer pricing allows the company to generate profit (or cost) figures for each division separately.

- **Avoidance of Divisional Conflicts:**
  Transfer prices are set among the units in such a way that general co-ordination between units are promoted, the implementation of appropriate procedures to ensure, as far as possible, uniformity in the classification and application of costs are maintained and divisional conflicts among different units are reduced.

- Better cash management.
- Competitive advantage

External Factors

- **Transfer Prices as a Tool to Minimize Worldwide Taxes, Duties and Tariffs:**
  Transfer prices may be set between two subsidiaries of a holding company and/or two units of a corporate body in such a way to minimize the taxes, duties and tariffs on their overall profit. For example, suppose, tax rate on profit in country X is lower than in country Y. The subsidiary in Y will then under invoice its export to the subsidiary in X. The profit at the latter subsidiary will be inflated, but that will bear a lower tax burden.

- **Avoidance of Financial Restrictions on Profit Repatriation Imposed by Government:**
  When in a country, financial restrictions on profit repatriation is imposed by Government, transfer prices is set among two subsidiaries by over invoicing its imports. In some countries there may be restriction on repatriation of income and dividend/profits. Goods are sought to be transferred to subsidiaries in these countries at more than the price otherwise settled at arm's length.

- **Inflation:**
  If a country hosting a subsidiary, has a high rate of inflation, early repatriation of fund is done by overcharging goods, exported to it so that money may not be tied up in a currency that depreciates. However, the tax and fiscal authorities of the host countries are vigilant. They impose penalty for manipulated evasion of taxation or import duties. To safeguard the position, the taxpayer may enter into an advanced pricing agreement with the related two tax authorities.

- Lesser foreign exchange risks.

(10 marks)

(Total: 20 marks)