

Intermediate Finance B

ADFM007/S3PFMQ5

LAST ASSESSMENT OPPORTUNITY

November 2018

TIME: 180 Minutes

MARKS: 100

ASSESSORS: Mr S Modiba

MODERATORS: Mr T Fusire (Internal)
Mr J Mpjane (External)

INSTRUCTIONS TO CANDIDATES

1. This paper consists of **12 pages**.
2. You are reminded that answers may **NOT** be written in pencil. **NO** tippex may be used.
3. Show all calculations clearly.
4. Silent, non-programmable calculators may be used, unless otherwise instructed.
5. Where applicable, round all amounts to the nearest Rand.
6. All open spaces must be crossed out with a pen.

Section	Marks	Time allocated (minutes)
A	25	45
B	25	45
C	50	90
Total	100	180

SECTION A

[25 marks]

QUESTION 1

(25 marks)

[Where applicable, round all answers to the nearest rand]

Select the correct option by WRITING the corresponding letter of the answer on the answer sheet.

Question 1.1

The existence of _____ on the statement of financial position generates tax advantage that directly influences the capital structure of the firm.

- A a large proportion of fixed assets.
- B long-term debt.
- C retained earnings.
- D preference shares

(1)

Question 1.2

Assume that the economy has unexpectedly and immediately gone into a recession. Which of the following firms that are in the same industry and exposed to the same business risks would most likely experience the largest increase in the present value of bankruptcy costs?

- A A firm with the highest proportion of equity financing.
- B All firms will see an identical rise in the present value of bankruptcy costs since the business risk is the same.
- C A firm with the highest proportion of debt financing.
- D A firm with the lowest proportion of debt financing.

(1)

Question 1.3

The probability that a firm will become bankrupt due to its inability to meet its obligations as they come due depends on:

- I. business risk
- II. exchange rate risk
- III. financial risk
- IV. capital risk

- A I, II and IV.
- B III and IV
- C I and III
- D II, III and IV.

(2)

Question 1.4

A firm's overall cost of equity is:

- A generally less than the firm's WACC given a leveraged firm.
- B unaffected by changes in the market risk premium.
- C highly dependent upon the growth rate and risk level of the firm.
- D generally less than the firm's after-tax cost of debt.

(1)

Question 1.5

The capital structure weights used in computing the weighted average cost of capital:

- A are based on the market value of the firm's debt and equity securities.
- B are based on the book values of total debt and total equity.
- C remain constant over time unless the firm issues new securities.
- D are restricted to the firm's debt and ordinary equity. (1)

Question 1.6

Milan Ltd has a target debt/equity ratio of 40%. The company's cost of equity is 15% and the after tax cost of debt is 7%.

Calculate Milan's weighted average cost of capital.

- A 12.71%
- B 11.80%
- C 9.29%
- D 11.00% (2)

Question 1.7

Henesey Ltd's share has a growth rate of 4.8% and a beta of 1.3. Henesey's equity is currently selling for R17 a share. The JSE has a 10.6% rate of return and the risk free rate is 5%.

Calculate Henesey's equity risk premium.

- A 5.6%
- B 5.8%
- C 9.8%
- D 7.28% (2)

Question 1.8

Given a home country and a foreign country, purchasing power parity suggests that:

- A the home currency will appreciate if the current home inflation rate exceeds the current foreign inflation rate.
- B the home currency will depreciate if the current home interest rate exceeds the current foreign interest rate.
- C the home currency will depreciate if the current home inflation rate exceeds the current foreign inflation rate.
- D the home currency will depreciate if the current home inflation rate exceeds the current foreign interest rate. (1)

Question 1.9

The Price/Earnings (P/E) of a share is 7.5 and the EPS is R5.30. The market price is:

- A R39.75
- B R1.42
- C R0.71
- D None of the above (2)

Question 1.10

The ordinary equity of Textile Ltd pays an annual dividend of R1.65 a share. The company has promised to maintain a constant dividend even though economic times are tough. How much are you willing to pay for one share of this equity if you want to earn a 12% annual return?

- A R1.65
- B R14.62
- C R13.75
- D None of the above as the share has no growth. (2)

Question 1.11

BBC (Pty) Ltd is evaluating a government social development project. The initial cash outlay on the project is R200 million and the anticipated net operating cash flows are R36 000 per annum. WACC of 8% was used to discount the cash flows and a negative NPV of R100 000 was derived.

Which of the following statements is correct regarding the project?

- A IRR is more than 8%
- B IRR is lower than 8 %
- C IRR should equal 8 %
- D None of the above (2)

Question 1.12

Consider the following statements regarding capital rationing.

1. Capital rationing is when a company has excess resources and wants to limit its returns.
2. In capital rationing the net present value index (NPVI) is a tool used when faced with different projects and limited resources.

Which ONE of the following combinations (true/false) is correct regarding the above statements?

- | | Statement 1 | Statement 2 | |
|---|-------------|-------------|-----|
| A | True | True | |
| B | True | False | |
| C | False | False | |
| D | False | True | (2) |

Question 1.13

The lower the inventory turnover measure, the:

- A faster an entity sells its inventory.
- B faster an entity collects payment / receipts on its sales.
- C longer it takes an entity to sell its inventory.
- D lower the amount of inventory held by an entity. (1)

The following information relates to question 1.14 and 1.15

FJK Media Ltd is deliberating on whether to lease or buy new equipment. The equipment costs R150 000. The lease period is for 5 years and SARS allows wear and tear on equipment at 25% per annum. The applicable before tax interest rate is 10%. Assume the South African Corporate tax rate is applicable and that Net Advantage Lease (NAL) is Nil.

Question 1.14

Calculate the tax value of the equipment in year 5.

- A R50 920
 - B R81 980
 - C R86 340
 - D Nil
- (2)**

Question 1.15

Calculate the wear and tear tax shield.

- A R9 500
 - B R10 500
 - C R11 500
 - D R37 500
- (2)**

Question 1.16

A _____ policy pays dividends out of leftover earnings after exhausting investment opportunities.

- A Stable dividend
 - B Zero dividend
 - C Residual dividend
 - D Bonus issue
- (1)**

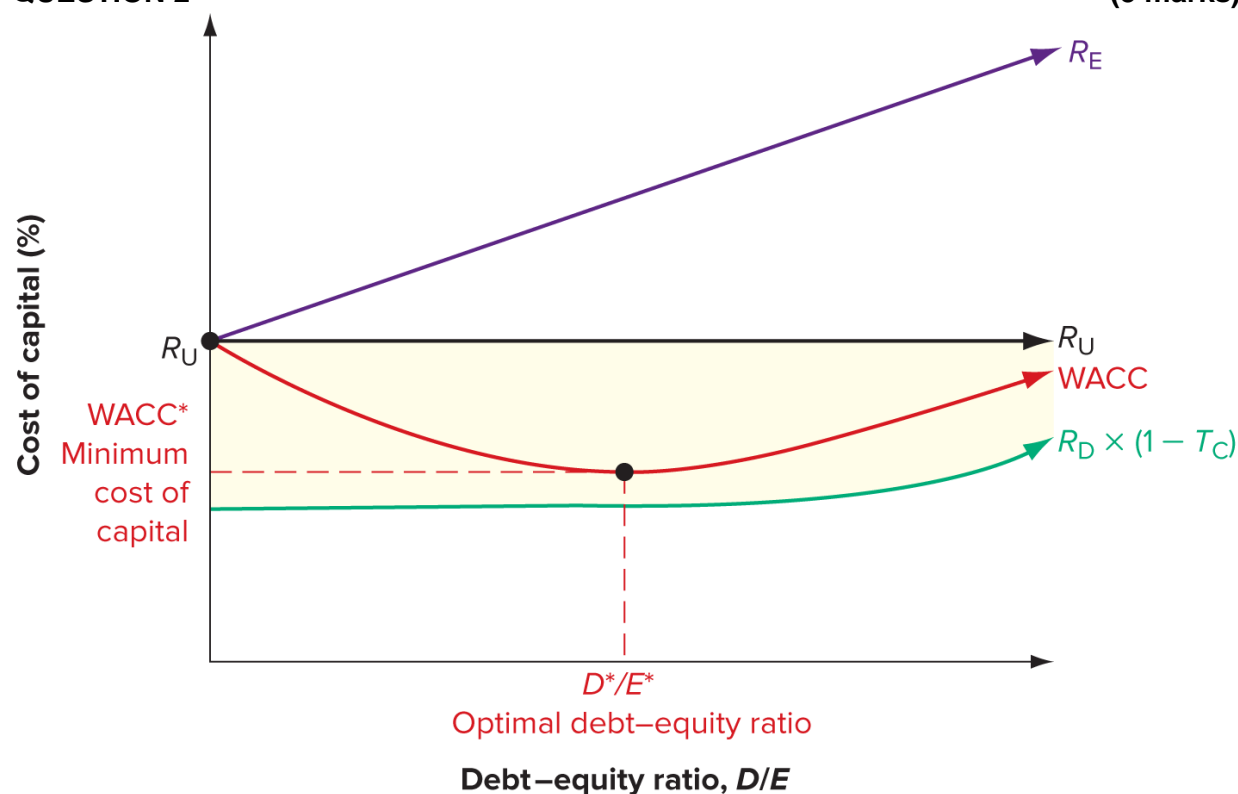
“End of Section A”

SECTION B

[25 marks]

QUESTION 2

(5 marks)



Source: HILLIER/CLACHER/ROSS, *Fundamentals of Corporate Finance*, 3rd edition.

R_E	= Cost of equity
R_U	= WACC of unlevered Firm
$R_D \times (1 - T_C)$	= After tax cost of debt
WACC	= Weighted Average Cost of Capital
D/E	= Debt/Equity ratio

REQUIRED:

- 2.1 Identify the capital structure theory depicted by the diagram above (1)
- 2.2 Explain the concept of optimal capital structure in relation to the diagram depicted above. (2)
- 2.3 Briefly explain the two components of a firm's cost of equity capital as identified by Modigliani and Miller proposition II. (2)

QUESTION 3

(10 marks)

The Board of directors of Bokamoso House (Pty) Ltd have approved the purchase of the manufacturing machinery to the value of R200 000. They are now considering various financing options. The following information is currently at their disposal regarding this machinery:

Cost of Machinery (If purchased cash)	R200 000
Scrapping value after 5 years	Nil
Wear and tear	20%
Weighted Average Cost of Capital	18%
Cost of Borrowed Funds before tax	12%

Assume :

- Tax is payable on the last day of each year and the South African tax rate is applicable.
- The company will have a sizeable taxable income annually for the next 5 years, sufficient to enable tax advantage to be utilized in the year in which they arise.

Lease financing :

- The machinery can be financed by means of a four-year lease agreement, with annual lease payments.
- The lease payments are payable in advance; starting at R37 174 per annum with an annual incremental clause of 10%.

REQUIRED:

- 3.1** Advice the Board of directors whether or not to lease the machinery. **(10)**

QUESTION 4

(10 marks)

Bluebag (Pty) Ltd is a medium sized company that recently reported a net income of R23 450 000. The directors of the company identified a potential lucrative project with a positive net present value of R2 000 000. The company secured a loan of R11 000 000 to finance a portion of the cost of the project and the balance has to be financed by the company's earnings.

Bluebag paid out 30% of total net income as dividends and the company applies a residual dividend policy.

REQUIRED:

- 4.1** Calculate the total cost of the project. **(4)**
- 4.2** Calculate Bluebag's target Debt/Equity ratio. **(2)**
- 4.3** Discuss two alternative forms of dividend payment. **(4)**

“End of Section B”

SECTION C**[50 marks]****QUESTION 5****(25 marks)**

Stickylabel is one of the largest black-owned, South African-based companies with business interests in South Africa and Botswana. Founded in 1990, Stickylabel has gained distinction in the supply of world-class self-adhesive labels. The company specialises in flexographic, letter press and digital print technologies, allowing it to print labels of consistently high quality on a range of substrates with a variety of finishes.

Digigroup Ltd, a large multinational digital media group, is considering purchasing the entire issued share capital of Stickylabel. Since the owners of Stickylabel are keen to sell their business, they have provided Digigroup with the following financial information:

INCOME STATEMENT FOR THE YEARS ENDED 30 JUNE.

	Actual	Forecast
	2018	2019
	R'000	R'000
Turnover	52 000	54 900
Net profit after tax	3 900	6 700

Net profit after tax was calculated after taking the following into account (all before tax):

Interest paid (Debentures)	2 160	2 160
Repairs and maintenance	1 200	1 300
Depreciation	2 300	2 600
(Profit)/Loss on sale of assets	400	460
Dividends received	200	250

STATEMENT OF FINANCIAL POSITION AT 30 June

	Actual	Forecast
	2018	2019
	R'000	R'000
Ordinary Shares	20 000	20 000
Retained earnings	17 300	20 000
18% Debentures	12 000	12 000
	49 300	52 000
Non-current assets	39 000	40 500
Cash	3 200	1 300
Other current assets	12 000	16 000
Current liabilities	(4 900)	(5 800)
	49 300	52 000

Additional information:

It is anticipated that the nominal growth rate will be 10% in 2020, 8% in 2021 and thereafter the growth rate will be 6% for the foreseeable future. Inflation is expected to be stable at 5% for the foreseeable future.

The dividend received relates to an investment in Copa Limited. Similar investments currently yield a return of 15% per annum. It is expected that the owners of Stickylabel limited will include the investment as part of the sale of the business. The investment has an expected annual growth rate of 5% beyond 2019.

Included in the Non-current assets of Stickylabel is an investment in a house which was acquired in 2010 for R1 500 000. The house is used by Stickylabel directors as an alternative office. Investment in similar houses currently yield a return of 12% per annum based on rentals of R15 000 per month. It is expected that the owners of Stickylabel will retain ownership of the house. The house will have to be rented from the owners in the future as it forms part of Stickylabel's key operating activities.

Digigroup currently has a WACC of 15% and Stickylabel has a WACC of 17%. It is expected that non-current assets will be replaced at an annual cost equal to inflation-adjusted depreciation. Debentures form part of the permanent capital structure of Stickylabel. Similar debentures currently carry a market related rate of 14%.

REQUIRED:

- 5.1** Prepare a report in which you advise the management of Digigroup on the maximum price to be paid in the acquisition of Stickylabel on 30 June 2018. **(25)**

QUESTION 6**(25 marks)**

This question consist of two independent parts.

Part A

NextGen (Pty) Limited is a company engaged in developing time management software, for the professional services market. Its main focus is electronic timesheet software for the legal and accountancy professions.

At a recent strategic meeting it was decided that the company would market its products internationally, and as a result the company received its first order from Sage & Scott Attorneys in the USA. Sage & Scott ordered software to the value of \$100 000. It was agreed that the deal would be concluded on 15 November 2018, and that the invoice would be paid by 15 February 2019.

The following information is applicable:

- The spot Rand/US\$ exchange rate on 15 November 2018 is R14.10;
- The expected inflation rate in South Africa for the foreseeable future is 6%;
- The expected inflation rate in the USA for the foreseeable future is 2%;
- Interest rates in South Africa for the foreseeable future are expected to be 9%; and
- Interest rates in the USA for the foreseeable future are expected to be 4%.

REQUIRED:

- 6.1** Calculate how much NextGen would receive, in Rand value, if Sage & Scott paid the full amount on 15 November 2018. **(1)**
- 6.2** Calculate how much NextGen will receive, in Rand value, if Sage & Scott pays the full amount on 15 February 2019, per the agreement, by applying the Absolute Purchasing Power Parity theory. **(3)**
- 6.3** Calculate how much NextGen will receive, in Rand value, if Sage & Scott pays the full amount on 15 February 2019, per the agreement, by applying the Interest Rate Parity theory. **(3)**
- 6.4** Briefly differentiate between the following terms:
- Spot exchange rate and forward exchange rate, **(2)**
 - Purchasing power parity and interest rate parity, **(2)**
 - Cross rate and exchange rate. **(2)**

Part B

Flymax Ltd (Flymax) is a South African technology company based in Johannesburg. Flymax manufactures unmanned aerial vehicles (UAV), also known as drones, for aerial photography and videography.

Flymax has a 4 years investment opportunity to consider in the USA. The project costs \$740 000 and it is expected to produce cash flows of \$150 000 in year 1, \$175 000 in year 2, \$220 000 in year 3 and \$189 000 in year 4. The current spot exchange rate for the R/US\$ is R14.10. The risk free rate in South Africa is 8% and the prevailing risk free rate in the USA is 2%. In addition, Flymax will be able to recoup \$85 000 from the disposal of the project at the end of year 4. The appropriate discount rate to evaluate the project is 15%. Flymax follows a home currency approach in evaluating foreign based capital projects.

REQUIRED:

- 6.5** Calculate the net present value (NPV) and advise Flymax whether to invest in the project. **(12)**
Hint: Ignore the effect of taxation.

“The End”