

MNF2023 FINANCIAL MANAGEMENT OCTOBER 2011 MCQ'S

Question	Answer
1.	3
2.	3
3.	4
4.	3
5.	1
6.	2
7.	3
8.	4
9.	3
10.	4
11.	3
12.	1
13.	3
14.	4
15.	3
16.	1
17.	2
18.	3
19.	3
20.	4
21.	2
22.	1
23.	2
24.	2
25.	1
26.	2
27.	2
28.	2
29.	2
30.	3
31.	REMOVE
32.	1
33.	2
34.	3
35.	3
36.	1
37.	3
38.	1
39.	2
40.	2

FINANCIAL MANAGEMENT MNE2023

MEMORANDUM FOR OCTOBER/NOVEMBER 2010

SECTION A

Qn	1	2	3	4	5	6	7	8	9	10
Ans	4	3	1	2	3	3	1	4	3	2
Qn	11	12	13	14	15	16	17	18	19	20
Ans	4	3	1	1	2	2	3	4	3	2
Qn	21	22	23	24	25	26	27	28	29	30
Ans	2	4	1	1	1	1	3	4	2	4
Qn	31	32	33	34	35	36	37	38	39	40
Ans	2	1	1	4	4	3	2	3	3	4
Qn	41	42	43	44	45	46	47	48	49	50
Ans	2	4	4	2	1	4	4	2	2	3

SECTION B (NO LONGER RELEVANT FOR FIN2601)

QUESTION 1.1

Total seasonal funds requirement = R9 824 000 1mark

Average monthly seasonal funds requirement = $\frac{R9\ 824\ 000}{6}$ 1mark

= R1 637 333 1mark

Aggressive strategy

Seasonal funds = $R1\ 637\ 333 \times \frac{0.11}{2} = R\ 90\ 053$ 2marks

Permanent funds = $R500\ 000 \times \frac{0.13}{2} = R32\ 500$ 1mark

Funds required = $[R90\ 053 + R32\ 500] = R122\ 553$ 1mark

Please note: Student gets total marks (6) if he/she works out the above 3 steps correctly.

QUESTION 1.2

Conservative strategy

$$[R2\ 000\ 000 + R500\ 000] = R2\ 500\ 000 \quad \text{3marks}$$

$$[R2\ 500\ 000 \times \frac{0.13}{2}] = R162\ 500 \quad \text{3marks}$$

Allocate half marks accordingly based on student's effort.

QUESTION 2

2.1 The following factors should be taken into consideration. Allocate 1 mark for each factor given to a total count of 3 marks.

- (a) Bad debts (any changes in the cost of bad debts) 1 mark
- (b) Accounts receivables change **or** 1 mark
- (c) Changes in the cost of carrying receivables 1 mark
- (d) Sales (the effect of change on sales) 1 mark
- (e) Profits (effect of changes on profits) 1 mark
- (f) Sales (the effect of changes on sales) 1 mark

2.2	Original sales	=	R1 200 000	=	[R1 200 000 + (5% × R1 200 000)]		New sales
	Current units	=	R1 200 000/R20	=	60 000 units		Current units
	New units	=	R1 260 000/R20	=	63 000 units		New units
	Change in units	=	63 000 – 60 000	=	3 000 units		Change in units
	Additional profit contribution	=	3 000 [20 – 7]	=	R39 000		Additional profit contribution

OR

$$\text{Change in sales} = [1\ 260\ 000 - 1\ 200\ 000] = R60\ 000$$

$$\text{Contribution margin} = [20 \times 60\ 000] - (7 \times 60\ 000) = R780\ 000 \quad 1\ \text{mark}$$

$$\text{Contribution margin per unit} = [R780\ 000/20] = R39\ 000 \quad 1\ \text{mark}$$

Allocate half marks accordingly based on student's effort.

2.3

Marginal cost of bad debts

$$\text{Present plan} = [0.01 \times R20 \times 60\ 000] = R12\ 000 \quad 1\ \text{mark}$$

$$\text{Proposed plan} = [0.02 \times R20 \times 63\ 000] = R25\ 200 \quad 1\ \text{mark}$$

$$\text{Marginal cost of bad debts} [12\ 000 - 25\ 200] = (R13\ 200) \quad 1\ \text{mark}$$

OR

$$\text{Present plan} = [0.01 \times 1\ 200\ 000] = R12\ 000 \quad 1\ \text{mark}$$

$$\text{Proposed plan} = [0.02 \times 1\ 260\ 000] = R25\ 200 \quad 1\ \text{mark}$$

$$\text{Marginal cost of bad debts} [12\ 000 - 25\ 200] = (R13\ 200) \quad 1\ \text{mark}$$

Allocate half marks accordingly based on student's effort.

MEMORANDUM FOR MAY/JUNE 2010
FINANCIAL MANAGEMENT (MNF2023)

SECTION A

Qn	1	2	3	4	5	6	7	8	9	10
Ans	3	12	13	14	15	16	17	18	19	20
Qn	11	12	13	14	15	16	17	18	19	20
Ans	2	2	1	4	1	2	1	4	4	3
Qn	21	22	23	24	25	26	27	28	29	30
Ans	2	2	4	1	1	3	2	4	2	1
Qn	31	32	33	34	35	36	37	38	39	40
Ans	2	4	1	2	2	1	2	1	1	2
Qn	41	42	43	44	45	46	47	48	49	50
Ans	3	4	3	4	1	2	2	4	3	4

SECTION B

1.1

Cash conversion cycle CCC = $AAI + ACP - APP$ = 1 Mark
 CCC = $65 + 15 - 35 = 45$ days = 1 Mark

(Student obtains 2 marks for the correct calculation irrespective of whether he/she writes the formula)

1.2

Operating Cycle OC = $AAI + ACP$ = 1 Mark
 OC = $65 + 15 = 80$ days = 2 Mark

2.1

Cost of giving up a cash discount = $\frac{CD}{N} \times \frac{100\% - CD}{360}$ = 1 Mark

= $\frac{0.02}{360} \times \frac{100\% - 2\%}{35}$

(Students should be credited (with 1 mark or half marks) based on their effort in obtaining the following expression(s) and/or the correct answers).

Annual savings = $5\,444.44 \times 15 \times 0.111 = R9\,065$ 2 Marks

Daily expenditure = $\frac{1\,960\,000}{360} = R5\,444.44$ 2 Marks

1.4

(Student obtains 1 mark for stating either of the formulae above, a half mark for compounding the Dividend (D₀) to (D₁) or 1 mark for the whole expression, and 1 mark for the correct answer. However, the student obtains 3 marks for getting the correct answer irrespective of whether he/she writes the formula/formulae, but must have done the calculation above)

$K_s = 11.10\%$ 2 Marks

$K_s = \frac{2(1 + 0.1)(\text{award a half mark for this expression})}{200} + 0.10$

$P_0 = \frac{D_1}{K_s - g}$ or $K_s = \frac{D_1}{P_0} + g$ 1 Mark

1.3 (STILL RELEVANT FOR FIN2601)

(Student obtains 3 marks for the correct calculation irrespective of whether he/she writes the formula)

This was the correct approach expected of section 2.3. However, due to a certain lack of clarity in the question, some students may use the 35 days instead of the required 90 days. Kindly credit them according to the criteria below.

Total interest cost on loan = [1 000 000 x (16% x 35/360)]

= 15 556

1 Mark

Effective 35 day interest on loan

$$= \frac{15\,556}{1\,000\,000 - 15\,556}$$

= 1.58%

1 Mark

Effective annual rate

$$= (1 + 0.0158)^{360/35} - 1$$

= 1.175 - 1

= 17.50%

1 Mark

Total mark here is 3 Marks

The correct answer (s) should not deviate significantly from the values obtained above using the 360 day year. These values may change significantly for that student who used 365 or 366 days. Please take note of that.

Year	Dividend
2003	2.32
2002	2.21
2001	2.10

1. Grebe Manufacturing is considering a cash purchase of the share of Grips Tool. During the year just completed, Grips earned R4.25 per share and paid cash dividends of R2.55 per share ($D_0 = R2.55$). Grips' earnings and dividends are expected to grow at 25% per year for the next three years, after which they are expected to grow at 10% per year to infinity. What is the maximum price per share that Grebe should pay for Grips if it has a required return of 15% on investments with risk characteristics similar to those of Grips?
2. China America Manufacturing has a beta of 1.50, the risk-free rate of interest is currently 12 percent, and the required return on the market portfolio is 18 percent. The company plans to pay a dividend of R2.45 per share in the coming year and anticipates that its future dividends will increase at an annual rate consistent with that experienced over the 2001-2003 period. Calculate the value of the company's shares.

Practice Question: Chapter 7: Share valuation

Question : Financial Statements and Analysis

Below are the financial statements of Zakaria (Pty) Limited for the year ended 31 December 2011.

<u>Income statement for 2011</u>	
Sales	R160 000
Cost of goods sold	(R106 000)
Gross profit	R 54 000
Other expenses	(R 27 000)
Administrative expenses	(R 10 000)
Operating profits (EBIT)	R 17 000
Interest paid	(R 6 100)
Profits before tax	R 10 900
Income tax (40%)	(R 4 360)
Net profit for the year	<u>R 6 540</u>

Balance sheet as at 31 December 2011

Assets	R	Liabilities and Equity	R
<i>Current assets</i>		<i>Current liabilities</i>	
Inventories	45 500	Accounts payable	22 000
Accounts receivables	25 000	Notes payable	47 000
Cash	<u>1 500</u>	Total current liabilities	<u>69 000</u>
Total current assets	<u>72 000</u>	Long-term debt	22 950
Net fixed assets	78 000	Shareholders' equity:	
		Ordinary shares	31 500
		Retained earnings	<u>26 550</u>
Total assets	<u>150 000</u>	Total equity and liabilities	<u>150 000</u>

Required

1.1 Use the above financial statements to **complete** the following table. (Do not show your workings in the table.) (10 marks)

Assumptions:

- a) The industry averages given in the table apply to both 2010 and 2011.
- b) Assume a 365-day year in your calculations.
- c) Use end-of-year figures for inventory.

(a) Ratio table

Ratio	Industry average	Actual 2010	Actual 2011
Current ratio	1,80	1,84	
Quick ratio	0,70	0,78	
Inventory turnover	2,50	2,59	
Average collection period	37,5 days	36,5 days	
Debt ratio	65%	67%	
Times interest earned or interest coverage ratio	3,8	4,0	
Gross profit margin	38%	40%	
Net profit margin	3,5%	3,6%	
Return on total assets (ROA)	4,0%	4,0%	
Return on shareholders' equity (ROE)	9,5%	8,0%	

1.2 What conclusions can you draw about the financial condition of Zakaria (Pty) Limited under the following headings? (5 marks)

(a) Liquidity

(b) Activity

(c) Debt

(d) Profitability

(e) Overall company performance

Question 1. Risk and Return

Given the following probability distribution for assets X and Y, compute (i) the expected rate of return, (ii) variance, (iii) standard deviation, and (iv) coefficient of variation for the two assets (v) Which asset is a better investment?

Asset X		Asset Y	
Return	Probability	Return	Probability
8%	0.10	10%	0.25
9%	0.20	11%	0.35
11%	0.30	12%	0.40
12%	0.40		

Chapter 4: Time value of money

1. John would like to accumulate R100 000 by the end of 4 years from now, to buy a sports car from his friend.
John has R20 000 now and would like to save equal end of the year deposits to pay for the car. How much should he deposit at the end of each year in an account, paying 9 percent interest to buy the car?

2. What impact does inflation have on the interest rates within a country?

3. Briefly discuss the main difference between future value techniques versus present value techniques.

4. State whether the following questions is true or false:

- a) The greater the interest rate and the longer the period of time, the higher the present value.
- b) Everything else being equal, the higher the interest rate the higher the future value

FIN2601: Introduction to financial management

Herewith a series of thought-provoking questions to aid you in thinking out of the box on matters that face businesses globally on a regular basis. If done properly, it will essentially summarise what you should have covered in Chapter 1 of your textbook.

- 1) Identify the main types of legal business organisations found in your country.
- 2) Discuss the pros and cons of each identified business type (e.g. with reference to ownership, continuity of existence, skills, etc).
- 3) The financial markets can be classified or broken down into money and capital markets. Briefly discuss the main securities found in each of the markets, and give real life examples of these active markets, globally.

FIN2601: Ethics and the Agency Problem

Herewith a series of thought-provoking questions to aid you in thinking out of the box on matters that face businesses globally on a regular basis. If done properly, it will essentially summarise what you should have covered in Chapter 1 of your textbook.

- 1) Identify 5 types of unethical practices commonly found in business.
- 2) What would be the impact on the share price of a listed entity should it be found to be engaging in unethical practices such as bribery, or window-dressing?
- 3) How would you, as a Company CEO, strive to attain high ethical standards within your company? Think in terms of the various departments such as human resources, finance, procurement, logistics, etc.
- 4) Discuss the different forms of the agency problem, and how they can be mitigated?
- 5) How is the agency problem linked to ethics?
- 6) Give at least 4 examples of companies which have encountered scandals as a result of their ethics or agency issues, and briefly describe what happened.

Time value of money: Memorandum

Question 1:

FV	100 000
PV	(-20 000)
N	4
I/YR	9
PMT	= R15 693, 49

This was a very interesting question which required you to think a bit broader than the knowledge gained from the textbook.

If money is in short in supply, interest rates will be high causing inflation to be low, on the contrary, if money is in plentiful supply, interest rates are low, causing inflation to be high.

This is the reason why higher interest rates tend to lead to lower inflation; and lower interest rates tend to lead to higher inflation.

Question 3:

Future value techniques measures cash flows at the end of a projects life.

Present value techniques measured cash flow at the start of a projects life (time zero).

Future value is cash you will receive at a given future date, and present value is just like cash in hand today.

Question 4(a):
False, the longer the period of time accompanied with a higher interest rate the smaller the present value will be.

Question 4 (b):
True, the higher the interest rate, the more interest income one will receive on one's investment, thus the higher the future value.

Answer to practice question: Chapter 7: Share valuation

Question 1

Step 1: Calculate the future dividends

$$D_0 = 2.55$$

$$D_1 = 3.1875 (2.55 + 25\%)$$

$$D_2 = 3.984 (3.1875 + 25\%)$$

$$D_3 = 4.9803 (3.984 + 25\%)$$

Step 2: Calculate the present value of future dividends

CF0	0
CF1	3.1875
CF2	3.984
CF3	4.9803
I/YR	15
NPV	= 9.06

how do I calculate NPV on calculator no CF function?

Step 3: Calculate the value of the share after the variable growth period.

$$P_3 = \frac{4.9803 + 10\%}{0.15 - 0.10}$$

$$P_3 = \frac{5.4783}{0.05}$$

$$= R 109.57$$

Step 4: Discount value of share back to year 0

FV 109.57

N 3

I/YR

15

PV = 72.04

Step 5: Calculate the present value of the share

$$R\ 72.04 + R9.06 = \overline{\overline{R81.10}}$$

Question 2

Step 1: Required return

$$\text{CAPM: } R_j = R_f + [\beta \times (R_m - R_f)]$$

$$= 0,12 + 1,50(0,18 - 0,12)$$

$$= 0,21$$

Step 2: Growth rate of dividends

FV 2,32

PV (-2,10)

N 2

I/YR = 5,11%

Step 3: Value of stock

$$P_0 = \frac{2,45}{0,21 - 0,0511}$$

It is much expeditious to calculate the above measures by constructing a table as below.

When calculating, you may elect to keep the percentages for the actual return as they are or to use decimals. However for ease of manipulation, you are encouraged to keep the percentages.

Practice Question 3

For Asset X

Actual Return / R_i	Probability of Return / P_i	Actual Return x Probability of Return / $R_i P_i$	Probability of Return / P_i	Actual Return / R_i	Square of deviation of actual return from expected return / $(R_i - \bar{R})^2$	Square of deviation of actual return from expected return / $\sum_{i=1}^n (R_i - \bar{R})^2 \times P_i$
8	0.10	0.80	0.80	7.29	0.73	$5 = 2 \times 4$ 2.02%
9	0.20	1.80	2.89	0.58	0.73	
11	0.30	3.30	0.09	0.03	0.68	
12	0.40	4.80	1.69	0.68	0.68	
	$\bar{R} =$	10.7%	$\sigma^2 =$	2.02%		

(i) Expected Return for Asset X = 10.7%

(ii) Variance of Asset X returns = 2.02%

(iii) Standard deviation for Asset X returns = $\sqrt{\text{Variance}}$

$$= \sqrt{2.02} = 1.42\%$$

(iv) Coefficient of variation = $\frac{sd}{R}$

$$= \frac{1.42}{10.7} = 0.13$$

For Asset Y

Actual Return / R_i	Probability of Return / P_i	Actual Return x Probability of Return / $R_i P_i$	Square of deviation of actual return from expected return / $(R_i - \bar{R})^2$	Square of deviation of Return) ²
10	0.25	2.50	1.32	0.33
11	0.35	3.85	0.02	0.01
12	0.40	4.80	0.72	0.29
	$\bar{R} =$	11.15%	$\sigma_i^2 =$	0.63%

(i) Expected Return for Asset Y = 11.15%

(ii) Variance of Returns of Asset Y = 0.63%

(iii) Standard deviation of Returns of Asset Y = $\sqrt{\text{variance}}$

$$= \sqrt{0.63}$$

$$= 0.79\%$$

$$(iv) \text{ Coefficient of Variation} = \frac{\sigma}{\bar{R}} = \frac{0.79}{11.15} = 0.07$$

Asset Y is preferred over Asset X as its coefficient of variation is lowest.

FIN2601: Ethics and the Agency Problem - Solutions

Herewith a serious of thought-provoking questions to aid you in thinking out of the box on matters that face businesses globally on a regular basis. If done properly, it will essentially summarise what you should have covered in Chapter 1 of your textbook.

1) Identify 5 types of unethical practices commonly found in business.
Bribery; extortion; gift-giving; use of child-labour; fin statement window-dressing

2) What would be the impact on the share price of a listed entity should it be found to be engaging in unethical practices such as bribery, or window-dressing?

Share price would decline in response to the negative publicity associated with such action

3) How would you, as a Company CEO, strive to attain high ethical standards within your company? Think in terms of the various departments such as human resources, finance, procurement, logistics, etc.

Factors that can positively influence ethical behaviour in an organisation

• Top management involvement and direct supervision;

• Stressing code values and standards in training;

• Human resources policies e.g. goal setting and incentives schemes;

• Recognition and tangible rewards for conduct which exemplifies desired values and standards;

• Constant consciousness of those written, codified values and standards in recruiting and hiring;

• Thorough concentration on high-risk jobs and areas in terms of violating code values and standards;

• Periodic certification and auditing to assure compliance with those code and values and standards;

• Well defined and fair enforcement procedures including sanctions;

• Organisational culture;

• Peer pressure;

• Work home balance.

4) Discuss the different forms of the agency problem, and how they can be mitigated?

Refer to Gitman textbook.

5) How is the agency problem linked to ethics?

Refer to Gitman textbook

6) Give at least 4 examples of companies which have encountered scandals as a result of their ethics or agency issues, and briefly describe what happened.

Parmalat – accounting scandal and mutual fund fraud

Enron - accounting fraud

Bayer - linked to human experiments, HIV-tainted blood products, racism, etc

Barings Bank – derivatives trading scandal

FINANCIAL MANAGEMENT FIN2601

SOLUTION TO PRACTICE QUESTION : FINANCIAL STATEMENTS & ANALYSIS

1.1 Ratio table (1 ✓ per ratio)

Ratio	Industry average	Actual 2009	Actual 2010
Current ratio	1.80	1.84	$CA \div CL = 72000 \div 69000 = 1.04$
Quick ratio	0.70	0.78	$(CA - \text{inventory}) \div CL = (72000 - 45500) \div 69000 = 0.38$
Inventory turnover	2.50	2.59	$COGS \div \text{Inventory} = 106000 \div 45500 = 2.33$
Average collection period	37.5 days	36.5 day	$AR \div (\text{annual sales} \div 365) = 25000 \div (160000 \div 365) = 57.03 \text{ days} = 57 \text{ days}$
Debt ratio	65%	67%	$TL \div TA = (150000 + 26550) \div 150000 = 61.3\%$
Times interest earned/ Interest coverage ratio	3.8	4.0	$EBIT \div \text{Interest} = 17000 \div 6000 = 2.83$
Gross profit margin	38%	40%	$GP \div \text{sales} = 54000 \div 160000 = 33.75\%$
Net profit margin	3.5%	3.6%	$NP \div \text{sales} = 6540 \div 160000 = 4.08750 = 4.09\%$
Return on total assets (ROA)	4.0%	4.0%	$NP \div TA = 6540 \div 150000 = 4.36\%$
Return on shareholders' equity (ROE)	9.5%	8.0%	$NP \div \text{ordinary share capital} = 6540 \div (31500 + 26550) = 11.27\%$

Price/Earnings = market price per ordinary share / EPS

higher PE, the greater the investor confidence.

liquidity, activity & debt ratios measure risk, Profitability measure return & market capture beta risk & return.

market ratios

operating PM

earnings per share

debt

liquidity ratios

current ratio

quick ratio

inventory turnover

average collection period

debt ratio

times interest earned

gross profit margin

net profit margin

return on total assets

return on shareholders' equity

(a) Liquidity ✓

Zakaria's liquidity position has deteriorated from 2009 to 2010 and is inferior to the industry average. The firm may not be able to settle short-term obligations as they fall due

(b) Activity ✓

Zakaria's ability to convert assets into cash has worsened from 2009 to 2010. An investigation into the cause of the 20.5 day increase in average collection period is necessary. Inventory turnover has decreased for the period under review and is fair compared to the industry. The firm may be holding slightly excessive inventory.

(c) Debt ✓

Zakaria's debt position has improved since 2009 and is below average. Zakaria's ability to service interest payments has deteriorated and is below the industry average

(d) Profitability ✓

Although Zakaria's gross profit margin is below the industry average, indicating high costs of sales, the firm has a better net profit margin in comparison to its competitors. Zakaria also has lower than average operating expenses. The superior return on total assets and return on equity in comparison to the industry shows an upward trend

(e) Overall company performance ✓

The firm maintains high profitability at the risk of illiquidity. Investigation into the management of inventory and accounts receivable is necessary.

Procedure for calculating expected return, variance of returns, standard deviation of returns, and coefficient of variation.

Expected Return = Sum of (Actual Return × Probability of Return)

$$\bar{R} = \sum_{i=1}^n R_i P_i$$

Where \bar{R} = Expected return,

R_i = Actual return i ,

P_i = Probability of return i

Variance = Sum of (Square of the deviation of actual returns from the expected return × probability of return)

$$\sigma^2 = \sum_{i=1}^n (R_i - \bar{R})^2 \times P_i$$

Where σ^2 = variance of returns and other symbols retain their meaning as explained above.

Standard Deviation = $\sqrt{\text{Variance}}$

$$= \sigma$$

$$= \sqrt{\sum_{i=1}^n (R_i - \bar{R})^2 \times P_i}$$

Coefficient of Variation = Standard deviation of return expressed as a proportion to the mean return.

$$CV = \frac{\sigma}{\bar{R}}$$

Year	Dividend
2003	2.32
2002	2.21
2001	2.10

1. Grebe Manufacturing is considering a cash purchase of the share of Grips Tool. During the year just completed, Grips earned R4.25 per share and paid cash dividends of R2.55 per share ($D_0 = R2.55$). Grips' earnings and dividends are expected to grow at 25% per year for the next three years, after which they are expected to grow at 10% per year to infinity. What is the maximum price per share that Grebe should pay for Grips if it has a required return of 15% on investments with risk characteristics similar to those of Grips?
2. China America Manufacturing has a beta of 1.50, the risk-free rate of interest is currently 12 percent, and the required return on the market portfolio is 18 percent. The company plans to pay a dividend of R2.45 per share in the coming year and anticipates that its future dividends will increase at an annual rate consistent with that experienced over the 2001-2003 period. Calculate the value of the company's shares.

Practice Question: Chapter 7: Share valuation

(a) Ratio table

Ratio	Industry average	Actual 2010	Actual 2011
Current ratio	1,80	1,84	
Quick ratio	0,70	0,78	
Inventory turnover	2,50	2,59	
Average collection period	37,5 days	36,5 days	
Debt ratio	65%	67%	
Times interest earned or interest coverage ratio	3,8	4,0	
Gross profit margin	38%	40%	
Net profit margin	3,5%	3,6%	
Return on total assets (ROA)	4,0%	4,0%	
Return on shareholders' equity (ROE)	9,5%	8,0%	

1.2 What conclusions can you draw about the financial condition of Zakaria (Pty) Limited under the following headings? (5 marks)

(a) Liquidity

(b) Activity

(c) Debt

(d) Profitability

(e) Overall company performance