

**FINANCIAL MANAGEMENT 202 (FM202)
PILOT MEMORANDUM
MAY 2011**

GENERAL

This memorandum is prepared to assist in the marking process as it indicates (a) the correct answer and (b) how marks should be allocated.

In evaluating answers, markers must keep in mind that the IMM GSM examinations are set on a higher education level and that the student should therefore not only illustrate an adequate understanding of theory, but also insight into the application of knowledge. In addition, the student should illustrate independent critical thinking.

The marker accepts that the student should be familiar with the contents of the learner guide and the prescribed textbook. If, however, factual and correct information is included from other valid academic sources besides the learner guide and the prescribed textbook, such knowledge and insights also qualify for the allocation of marks.

When answering questions the student is required to:

- Read each question carefully and thoroughly before attempting the answer, in order to determine exactly what is required.
- Allocate sufficient time to answer each question in proportion to the marks indicated on the examination paper.
- Number answers clearly and correctly.
- Provide answers in a legible handwritten format.
- Set out the answers in a structured format and formulate statements in full and coherent sentences.

In most papers one mark is normally allocated for each factual statement.

This memorandum should also assist students and student support centres in preparing for future examinations. As the memorandum accompanies the examination paper and is prepared prior to the examination session, it is not able to include areas where the students provided incorrect answers.

The memorandum is also central to the moderating team when performing moderation of examination scripts.

After the release of marks for any examination session, the memorandum becomes public knowledge and is available to students.

Answer ALL the questions

QUESTION 1**[30]**

Spice Manufacturers Ltd projected Income Statement			
for the period ended	2011	%	
Revenue	4 000 000	100.0%	✓
Less: Cost of Sales	2 355 900	58.90%	✓✓
Material	1 080 000	27.00%	✓✓
Labour	560 000	14.00%	✓✓
Overhead	625 900	15.65%	✓✓
Depreciation	90 000	2.25%	✓✓
Gross Profit	1 644 100	41.10%	✓✓
Less: Operating expenses	651 429	16.29%	✓✓
Selling expenses	439 114	10.98%	✓✓
General & administrative expenses	212 314	5.31%	✓✓
Operating profit for the year	992 671	24.82%	✓✓
Finance cost and interest expense	220 000	5.50%	✓✓
Earnings before tax	772 671	19.32%	✓✓
Taxation	216 000	5.40%	✓✓
Increase in accumulated profits	556 671	13.92%	✓✓
Comment: Profit after tax improved in real terms.			✓

QUESTION 2**[15]**

Working capital policy involves two basic questions:

1. What is the appropriate level for current assets? ✓
2. How should the current assets be financed? ✓

Three basic approaches are identified to working capital finance, namely a moderate (maturity matching) ✓ approach, an aggressive ✓ approach and a conservative ✓ approach.

A moderate approach to working capital asset finance is where the firm attempts to match the asset and liability maturity ✓. This strategy minimises the risk that the firm will be unable to pay off its maturing obligations ✓

When a firm finances all of its fixed assets with long-term capital ✓ but part of its permanent current assets with short-term credit ✓, it is said to follow an aggressive approach to financing its current assets. If a company suddenly finds that it cannot renew its short-term liabilities (such as the bank refusing overdraft facilities or creditors demanding immediate payment of their balances), there will be a danger of insolvency ✓ unless the company can sell enough current assets for cash.

If the firm finances all of its permanent current assets ✓ and some of its fixed capital ✓ with short-term credit it would be regarded as a highly aggressive, extremely non-

conservative position✓. In this instance a firm would be subject to dangers from rising interest rates as well as to loan renewal problems. Short-term debt is, however, often cheaper than long-term debt and some firms are willing to sacrifice safety for higher profits. There is therefore a trade-off between the higher risk and the higher return, which is offered by a more aggressive working capital policy.

A firm following a conservative approach to working capital finance will finance all fixed assets✓, permanent current assets ✓plus a portion of temporary current assets✓ with long-term debt✓.

The decision as to how the working capital will be financed will therefore vary from one firm to another, depending largely on management's attitude towards risk✓.

(Note: allow max. of 15 marks for this question)

QUESTION 3 [15]

3.1

a)

Cost of forfeiting cash discount =	$\frac{2.25}{(100 - 2.25)\%}$	X	$\frac{360 \text{ days}}{(30 - 10) \text{ days}}$	✓✓
				✓✓
=	2.30	X	18	
=	41.4%	p.a.		✓

b) They should still take up the cash discount as the interest saved is greater than the bank interest✓ that they could earn and business owners' wealth would thus be improved✓.

3.2

Cost of loan from bank			
Interest payable:	in Advance	at Maturity	
Loan amount	150 000	150 000	
Interest rate	9%	10%	
Interest payable	13 500	15 000	✓✓
Amount received from bank	136 500	150 000	✓✓
Effective interest rate	9.89%	10.00%	✓✓

Motivation for placing loan:

Based on the effective interest rate calculation, the loan should be placed with the bank requiring the payment of interest in advance ✓since the effective interest rate is lower ✓than at the bank requiring payment of interest at maturity.

QUESTION 4 [15]

- a) Operating Cycle = Average Age of Inventory + Average Collection Period
 = 75 days + 45 days ✓✓
 = 120 days ✓
- b) Cash Conversion Cycle = Operating cycle – Average Payment Period
 = 120 days – 58 days ✓✓
 = 62 days ✓; positive cash conversion cycle ✓
- c) Funding required = Operating Cycle investment/360 days x Cash Conversion Cycle
 = R630,000/360 x 62 ✓✓✓
 = R108,500 ✓
- d) Finance costs = R108,500 x 8% ✓✓
 = R8,680 ✓; the costs decrease the firm's profitability. ✓

QUESTION 5 [25]

- 5.1 $R_1 = [(R530 ✓ - R500 ✓) + R40 ✓] / R500 ✓ \times 100 = 14.00\% ✓$
 $R_2 = [(R550 ✓ - R530 ✓) + R45 ✓] / R530 ✓ \times 100 = 12.26\% ✓$
 $(14.00\% ✓ + 12.26\% ✓) / 2 ✓ = 13.13\% ✓$
(Note: ½ mark for each tick)

- 5.2
- a)
- | | |
|---|--------------|
| Cost of new equipment | R170,000 ½ ✓ |
| plus Installation cost | R 10,000 ½ ✓ |
| less Proceeds from sale of old equipment | R 3,000 ½ ✓ |
| plus tax liability on profit from sale of old equipment | R 840 ½ ✓ |
| Total for initial investment | R183,840 ✓ |
- b)
- Incremental operating cash inflows
 Depreciation = $(R170,000 \frac{1}{2} ✓ + R10,000 \frac{1}{2} ✓) / 5 = R36,000 \frac{1}{2} ✓$
 Incremental operating cash inflows = NOPAT + Depreciation
 = R15,000 ½ ✓ + R36,000 ½ ✓
 = R51,000 ½ ✓

- 5.3 a)

Machine A				
	Net cash flows	PVIF	Present Value	
Year 1	105000	0.8696	91 308	½✓
Year 2	105000	0.7561	79 391	½✓
Year 3	105000	0.6575	69 038	½✓
Year 4	105000	0.5718	60 039	½✓
Year 5	105000	0.4972	52 206	½✓
			351 981	½✓
Investment			350 000	½✓
NPV			1 981	½✓
Machine B				
	Net cash flows	PVIF	Present Value	
Year 1	81000	0.8696	70 438	½✓
Year 2	81000	0.7561	61 244	½✓
Year 3	81000	0.6575	53 258	½✓
Year 4	81000	0.5718	46 316	½✓
Year 5	81000	0.4972	40 273	½✓
			271 528	½✓
Investment			270 000	½✓
NPV			1 528	½✓

- b) Both projects are acceptable ✓ since their net present values exceed 0 ✓. We rank projects according to NPV amount ✓ and because Machine A has the higher NPV it is regarded as superior to Machine B. ✓