**Part (a)**

<table>
<thead>
<tr>
<th>Cost of equity = Rf + ß(Rm-Rf)</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Risk free rate</strong></td>
<td>9.5%/10%</td>
</tr>
<tr>
<td>• Current yield on government bond redeemable in 2019 provides best proxy</td>
<td>1</td>
</tr>
<tr>
<td>- <strong>zero or limited</strong> default risk</td>
<td>1</td>
</tr>
<tr>
<td>- <strong>maturity profile</strong> acceptable (10 years = long term/matches new project timeline)</td>
<td>1</td>
</tr>
<tr>
<td><strong>Alternative answer</strong></td>
<td>11.20%</td>
</tr>
<tr>
<td>Long term average TB rate a <strong>reasonable proxy</strong> for risk free rate</td>
<td>1</td>
</tr>
<tr>
<td>- <strong>Short term</strong> = zero default risk</td>
<td>1</td>
</tr>
<tr>
<td>- Long term average rate a reasonable estimate of <strong>expected return</strong> on Rf instrument</td>
<td>1</td>
</tr>
<tr>
<td>To use current yield is not appropriate as rates vary daily</td>
<td>1</td>
</tr>
<tr>
<td><strong>Beta coefficient</strong></td>
<td>1.2</td>
</tr>
<tr>
<td>Average beta of similar companies acceptable</td>
<td>1</td>
</tr>
<tr>
<td><strong>Market premium</strong></td>
<td>4.00%</td>
</tr>
<tr>
<td>• 20 year average return on JSE at 31 October 2008 less Rf</td>
<td>1</td>
</tr>
<tr>
<td>• 20 year average has <strong>declined</strong> from 16.1% to 14% over past 3 months implying significant <strong>market correction</strong></td>
<td>1</td>
</tr>
<tr>
<td>• <strong>Could be argued that 16.1% more appropriate on basis of over-correction in markets</strong></td>
<td>1</td>
</tr>
<tr>
<td><strong>Cost of equity derived</strong></td>
<td>14.80%</td>
</tr>
<tr>
<td>Increase cost of equity derived due to <strong>higher risks</strong> associated with private company/↑ beta</td>
<td>1</td>
</tr>
<tr>
<td><strong>Other valid comment</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Maximum 8</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Part (b)**

| **Weighting** | |
| Historically WACC = cost of equity | 1 |
| Weighting of debt and equity should be determined based on **target capital structure** | 1 |
| In determining weightings, **market values** of debt and equity should be used | 1 |
| Term loan is likely to be **repaid within 4 years** and there could be a strong argument to use WACC for next 4 years | 2 |
| In determining amount of debt for weighting purposes, use **net debt (term loan - cash)** | 1 |

| **WACC** | |
| Raising debt introduces **financial risk** in company | 1 |
| **Cost of equity and debt will increase as debt equity ratio increases** | 1 |
| In SCP's case, debt equity ratio is likely to be low and should not impact on cost of equity/risk | 1 |
| Cost of debt is **after tax** (72% of debt rate) | 1 |
| Introducing debt into capital structure will **lower SCP's WACC** | 1 |
| **Raising fee** will increase cost of debt | 1 |
| **Increase WACC** for increased risk of **new division** | 1 |
| **Maximum 6** | |
Part (c)

Errors & omissions

- **Overhead recoveries** are a sunk cost and should be excluded from capital budget

- Repayment of **head office loan** should not be included in budget (1) and reasonable explanation (1)

- **Interest costs** should be ignored (WACC takes into account cost of funding)

- Taxation should be adjusted for impact of above errors

Calculations:

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBITDA growth</td>
<td>24.40%</td>
<td>23.32%</td>
<td>22.42%</td>
<td></td>
</tr>
<tr>
<td>EBITDA/revenue</td>
<td>27.14%</td>
<td>29.36%</td>
<td>31.48%</td>
<td>33.51%</td>
</tr>
<tr>
<td>Gross profit %</td>
<td>44.44%</td>
<td>46.32%</td>
<td>48.05%</td>
<td></td>
</tr>
<tr>
<td>Salaries/revenue</td>
<td>5.61%</td>
<td>5.36%</td>
<td>5.13%</td>
<td></td>
</tr>
<tr>
<td>Increase in salaries</td>
<td>10.00%</td>
<td>10.00%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Working capital year end balances

- inventory: 8,712, 9,770
- accounts receivable: 14,072, 16,182
- accounts payable: 6,564, 7,361

Changes in working capital

- inventory: -4,712, -1,058
- accounts receivable: -14,072, -2,110
- accounts payable: 6,564, 797

Candidates may do above calculations & need to be rewarded for relevant effort

Assumptions requiring clarification/amendment

One mark for identifying issue & 1 mark for explaining issue

**Revenue growth** of 15% p.a. for next 10 years may be unrealistically high

- infrastructural spend by government & growth in industrial property unlikely to be 15% forever
- current slowdown in economic growth may adversely affect demand for SCP's products
- customers may not all be willing to switch to SCP chemicals from Drake brand
- Drake and others may compete directly with SCP limiting revenue growth
- SCP's ability to pass on inflationary & COS ↑'s to customer needs to be investigated

**Material cost** increases may not be accurate

- Cost drivers may differ from revenue growth
- any materials imported by suppliers? If so, recent ZAR exchange rate movements may affect forecasts

**Labour cost** increases may need review

- increase of 10% p.a. may not be realistic for next 10 yrs. CPIX currently high (~13%) but this may ↓

**Variable manufacturing overheads** increase may not be 5% of revenue

- need to investigate cost drivers & whether these costs are realistic
- there may be stepped increases as production volumes increase

**Gross profit %** may be unrealistically high

- ratio forecast to be 44% in 2010 increasing every year thereafter, which may not be realistic
- gross profit margins may be lower due to loss of Drake brand
- budgeted GP% is much higher than 30% achieved on importing chemicals

**Inventory** cash flows may need further analysis

- inventory levels re own production may change from importing chemicals

**Trade payables** should be investigated

- levels may be lower as SCP would procure from local suppliers as opposed to importing
- investigate terms with local suppliers as they may be lower than foreign suppliers

**Working capital**

- incremental investment may be lower as SCP currently has stock, debtors and creditors
- increase of 15% p.a. from 2016 onwards may need further analysis (higher than 2010 - 2015)

**Capital expenditure** budget may need verification

- has SCP received a fixed price quotation or is there scope for increased costs?

**2016 onwards**

- EBITDA increasing by 10% p.a. yet increases prior to that were much higher
- release of working capital at end of project/division's life?

Other valid comment

Maximum 20
**Part (d)**

<table>
<thead>
<tr>
<th>Description</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acquisition of plant &amp; equipment</td>
<td>-40,000</td>
<td>1</td>
</tr>
<tr>
<td>Inventories</td>
<td>-4,000</td>
<td>1</td>
</tr>
<tr>
<td>EBITDA (mark for excl interest)</td>
<td>23,231</td>
<td>1</td>
</tr>
<tr>
<td>Ignore interest</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Overhead recoveries</td>
<td>14,013</td>
<td>1</td>
</tr>
<tr>
<td>Taxation</td>
<td>-8,188</td>
<td>1</td>
</tr>
<tr>
<td>Working capital (given) (-4712 - 14072 +6564)</td>
<td>-12,220</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>-44,000</td>
<td>16,836</td>
</tr>
</tbody>
</table>

**Alternative answer**

Gross Profit + salaries + depreciation \[38044-4800+4000\] = 37244 = 23231+14013

Ignore interest

Taxation calculation (EBITDA + Overhead recoveries - wear & tear) \times 28%

Maximum 10

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**Part (e)**

- SCP derives > 80% of its revenue from distributing Drake products. In the event that Drake cancelled this agreement, the risk of business failure of SCP is high
- Adverse exchange rate movements would increase cost of imported products + explanation
- Loss of key staff represent a major risk
- Increasing competition in the market
- Current financial markets crisis/slow down in economic growth could impact on SCP revenue growth and margins
- Risk of bad debts and impact on SCP profits & cash flows (particularly given state of economy)
- Sale of chemicals could lead to environmental/health risks

Maximum 10

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**Part (f)**

**Drake relationship**

- Risk of Drake not renewing equipment distribution in 2013
- Drake may decide to use another SA distributor for chemicals or enter market directly
- Possibility of legal action from Drake (non-compliance with or breach of distribution agreement)

**New business risks**

- Existing customers may prefer purchasing Drake or internationally recognised chemical brands
- Plant & equipment may not operate as represented/start up issues
- Manufacturing represents a fundamental change of business from distributing chemicals. Does SCP have the expertise to change its nature of business?
- Onerous lease if the division is not opened
- Significant upfront investment
- New supplier may be unreliable

**Management of Chemical division**

- Risk of new management not joining SCP but staying at present employers?
- SCP may be overly reliant on management team given its limited knowledge of chemical manufacturing
- New management team may not be as competent as represented

**Product risks**

- Chemicals manufactured may be of inferior quality
- Problems or delays in new product development and formulations
- Risk of SCP breaching international or local patents
- Environmental risks / health risks associated with manufacturing and selling chemicals

**Financial risks**

- Default risks re failure to make repayments and/or breach of covenants
- Obtaining R45m loan generally increases financial risk
- Risk of interest rates declining and SCP paying higher fixed interest rate

**Other risks**

- Economic slowdown and impact on new division
- Eskom load shedding/power interruptions & impact on manufacturing
- Actual results of new division are significantly lower than Capital Budget (errors/over-optimism)
- Effects of inflation on success of the business
- Increased competition as competitors target SCP’s customers

Maximum 16
### Part (g)

**NPV/IRR techniques**
- Starting new division or continuing distribution are *mutually exclusive projects* (capital rationing)
- Comparing alternatives on **NPV approach is feasible** as information is available to do so
- Discounting forecast cash flows using WACC, the alternative with *highest NPV* should be favoured
- Possibly use different WACC for old and new divn due to different risks
- Only *relevant cash flows* should be considered (ignore sunk costs etc)
- Determining an **IRR for new division is possible** from information given
- Evaluating IRR of *existing operations may be more difficult* (limited upfront investment required)
- If alternatives *IRR > WACC* then should enhance shareholder value
- Generally, the alternative with *highest IRR* should be selected

**Factors impacting on strategic evaluation**
- *Risks* associated with starting new division
- Starting new division involves a *significant upfront investment*, continuing with current operations doesn't
- Sales of chemicals represent >50% of company revenue hence, decision is material
- SCP's *strategic intent* - if to reduce reliance on Drake then starting own manufacturing is important
- SCP could source chemicals from other *SA suppliers* instead of manufacturing?
- Capital Budget needs to include *sensitivity analysis* to evaluate impact of changing assumptions
- Use *higher WACC/discount rate for new division* given risks?
- Impact of *global economic recession*? May not be prudent to invest in current economic climate?
- Risk of *adverse currency movements* - starting own manufacturing may reduce this risk
- *Reputational risk* /loss of credibility/impact on equipment distribution
- *Loss of focus* on core business

### Maximum 12

### Part (h)

- Whether SCP has *sufficient profits* available for distribution
- Solvency & liquidity of SCP post payment of dividends/have sufficient cash to pay dividends
- Early repayment penalties on term loan so no incentive to repay early
- Covenants of term loan - may preclude payment of dividends?
- Given risks of new division it may be *prudent to defer dividends* until loan repaid or division profitable
- STC effect of dividend payments
- Other uses for surplus cash eg. organic growth/new projects?
- 30% payout is relatively *low dividend cover*
- SCP is a private company owned by executive directors therefore *no pressure to pay dividends*

### Maximum 7

### Part (i)

**Meet requirements of SCP?**
- Loan amount may be **too high**, SCP has cash of ~R13m
- 5 year term acceptable as it gives SCP sufficient time to repay loan
- Fixed interest rate provides *certainty* re future cash flow commitments
- Drawdown to should occur before 30/9/2009 to provide enough time to pay equipment supplier

**Terms to be renegotiated/amended**
- Negotiate *lower principal amount* or have flexibility to draw down less
- Pay raising fee upfront to avoid additional interest
- Early repayment without penalty should be negotiated
- Personal suretyships is problematic, company has provided sufficient security
- First capital repayment perhaps moved to 2010 to allow SCP time to set up division
- Negotiate a *variable interest rate* given that rates seem to be declining/potential to swap from fixed
- If suretyships required then ensure that these are restricted by *amount & capped*

### Maximum 8

**Presentation marks**
- layout 2
- logical argument 2
- language 1

| Maximum | } | Page 4 of 4 |