### Part (a)

#### Per unit

<table>
<thead>
<tr>
<th>Item</th>
<th>Revenue</th>
<th>Variable overheads</th>
<th>Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Per unit</td>
<td>475</td>
<td>-28</td>
<td>202</td>
</tr>
</tbody>
</table>

**Identifies direct labour & fixed overheads are irrelevant**

#### Forecast cash flows

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue</th>
<th>Sawn timber</th>
<th>Other direct materials</th>
<th>Allocated overheads</th>
<th>Contribution</th>
<th>Incremental cash costs</th>
<th>Warehouse rental</th>
<th>Driver costs</th>
<th>Other working capital movements</th>
<th>Taxation</th>
<th>Inventories</th>
<th>Net cash flows</th>
<th>NPV</th>
<th>Taxation workings</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>-50,000</td>
<td>-90,000</td>
<td>-234,000</td>
<td>-20,000</td>
<td>-90,000</td>
<td>-132,132</td>
<td>-716,932</td>
<td>612,978</td>
<td>Profit from contract</td>
</tr>
<tr>
<td>2013</td>
<td>2,299,000</td>
<td>-677,600</td>
<td>-508,200</td>
<td>-135,520</td>
<td>977,680</td>
<td>-50,000</td>
<td>-90,000</td>
<td>-234,000</td>
<td>-20,000</td>
<td>25,200</td>
<td>-132,132</td>
<td>459,476</td>
<td>459,476</td>
<td>Profit from contract</td>
</tr>
<tr>
<td>2014</td>
<td>2,679,000</td>
<td>-798,600</td>
<td>-592,200</td>
<td>-157,920</td>
<td>1,139,280</td>
<td>-50,000</td>
<td>-90,000</td>
<td>-234,000</td>
<td>-20,000</td>
<td>25,200</td>
<td>-132,132</td>
<td>592,754</td>
<td>592,754</td>
<td>Profit from contract</td>
</tr>
<tr>
<td>2015</td>
<td>2,764,500</td>
<td>-814,100</td>
<td>-611,100</td>
<td>-162,960</td>
<td>1,175,640</td>
<td>-50,000</td>
<td>-90,000</td>
<td>-234,000</td>
<td>-20,000</td>
<td>25,200</td>
<td>-132,132</td>
<td>925,134</td>
<td>925,134</td>
<td>Profit from contract</td>
</tr>
</tbody>
</table>

**Net cash flows**

**NPV**

**Taxation workings**

**Acceptable alternative taxation calculations**

**Working capital calculations**

**Release of working capital in 2015**

**Higher level application**

**Tax impact of movement in Inventories**

**Implications of raising more than is required**

**Will Apex need to increase raw material inventories?**

**Negative mark - including finance costs in capital budget**

**Communication skills**

- **Structure & layout of answer**: 2
Part (b)

**Risks associated with Mandlovu**

- **Credit risk** - risk that Mandlovu will not pay amounts when due, resulting in Apex suffering financial loss and placing strain on Apex’s cash flows
  
- **Government terminating contract** with Mandlovu due to tender rigging, fronting etc. Apex will suffer losses due to ongoing operating costs incurred and investment in trucks

- **Mandlovu failing to honour contract** with Apex and ordering from other suppliers, adversely impacting on Apex’s profitability and cash flows

- **Reputational risk** of doing business with Mandlovu - eg. Any unethical business practices may by association tarnish Apex’s credibility and reputation. Knock on impact could be severe affecting Apex’s entire business (loss of business etc)

- **Strategic risks related to entering into supply arrangement**
  - Apex is currently experiencing cash flow problems, entering into contract may add to liquidity issues. If the contract is not profitable or cash flows are negative, this could place entire business at risk

- **Other customers** may become aware of 5% discount offered to Mandlovu and insist on similar discount, reducing Apex’s overall profitability

- **Apex may lose focus on existing customers** due to pressure to deliver & perform on Mandlovu contract. Result could be that existing customers turn to other suppliers, resulting in a loss of business for Apex and lower profitability

- **Although Apex has sufficient capacity at present, market conditions may improve and Apex could experience capacity issues**, Impact may that existing customers cannot be serviced or opportunities foregone = long term loss of market share

- **Manufacturing staff** may be unhappy working under intense pressure to meet 48 hour deadlines or working overtime.
  - Result could be strikes, demands for higher wages and inefficiency = lower margins for Apex, lower output/profits

- **Apex may not be able to meet 48 hour lead time** between order and delivery resulting in penalties or higher costs such as overtime, reducing contract profitability

- **Apex’s suppliers may not be able to cope** with increased volumes resulting in Apex failing to deliver on time to Mandlovu and other customers. Impact could be loss of business or penalties

- **Apex will be raising additional debt - loan covenants** re overdraft may be breached due to debt levels or lower profitability. Bank withdrawing overdraft facility due to breach of covenants may result in going concern risk

- **Contract specific risks**
  - **Apex may not be able to increase selling price** to cover increasing costs, resulting in lower contract profitability

- **Mandlovu may have over-estimated demand** - contract not as profitable as forecast

- **Manufacturing costs may have been under-estimated**, resulting in lower contract profitability/or standard costs inaccurate

- **Have all costs associated with contract been identified?** Repairs & maintenance etc. Impact = lower profits than forecast

- **Working capital** investment may have been under-estimated - further drain on cash flows

- **Failure to sub-let warehouse** in 2015 will result in R90k less profit

- **Inventory** is separate warehouse - more susceptible to theft/damage

- **Sale value of trucks in 2015** may have been over-estimated - lower overall contract profitability

- **Communication skills - clarity of expression**

**Maximum 17**

Part (c)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PV</td>
<td>950,000</td>
</tr>
<tr>
<td>FV</td>
<td>-1,000,000</td>
</tr>
<tr>
<td>N</td>
<td>6</td>
</tr>
<tr>
<td>PMT</td>
<td>-60,000</td>
</tr>
</tbody>
</table>

**PV = 950,000**

**FV = -1,000,000**

**N = 6**

**PMT = -60,000**

**Reminder that pre & post tax calc’s acceptable**

\[
\frac{(1+i)^n - 1}{i} \]

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>5.32% Nominal rate (bi-annual)</td>
<td>7.05%</td>
</tr>
<tr>
<td>10.63% Nominal annual rate</td>
<td>14.10%</td>
</tr>
<tr>
<td>10.91% Effective annual rate</td>
<td>14.60%</td>
</tr>
</tbody>
</table>

**Maximum 6**