(a) **Bedrooms department – ABC profit statement**

Fixed general overheads = 70% x 17 500  
= **12 250**

Activity drivers:
Items sold = 1 000 + 1 500 + 4 000  
= **6 500**
Purchase orders = 1 000 + 900 + 2 500  
= **4 400**
Floor area = 16 400 + 10 000 + 14 400  
= **40 800**
Consultations = 798 + 200 + 250  
= **1 248**

<table>
<thead>
<tr>
<th>Cost Driver</th>
<th>Quantity</th>
<th>Recovery rate</th>
<th>BRD Qty</th>
<th>Cost R'000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales staff</td>
<td>6 644</td>
<td>4 400</td>
<td>1,51</td>
<td>900</td>
</tr>
<tr>
<td>Consultation</td>
<td>2 496</td>
<td>1 248</td>
<td>2,00</td>
<td>200</td>
</tr>
<tr>
<td>Warehouse</td>
<td>3 055</td>
<td>6 500</td>
<td>0,47</td>
<td>1 500</td>
</tr>
<tr>
<td>Admin</td>
<td>3 050</td>
<td>5 648</td>
<td>0,54</td>
<td>1 100</td>
</tr>
<tr>
<td>General</td>
<td>12 250</td>
<td>40 800</td>
<td>0,30</td>
<td>10 000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>6 060</strong></td>
</tr>
</tbody>
</table>

**Profit Statement for 3 months**

R’000

Sales  
11 250
Cost of sales  
3 750
Gross profit / contribution  
7 500
Variable general costs (17 500 x 30% x 3 750 / 27 650)  
712
Contribution  
6 788
ABC fixed costs  
6 060
Operating profit  
728

(b) **Evaluation of Bedroom closure**

<table>
<thead>
<tr>
<th>Breakeven:</th>
<th>ABC</th>
<th>Traditional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contribution %</td>
<td>R6 788</td>
<td>R7 500 000</td>
</tr>
<tr>
<td></td>
<td>R11 250</td>
<td></td>
</tr>
<tr>
<td></td>
<td>= 60,34%</td>
<td></td>
</tr>
</tbody>
</table>

**OR: Contribution per unit:**

| R6 787 975 | R7 500 000 |
| 1 500 units | 1 500 units |
| R4 525.32 per unit | R5 000 per unit |
Based on ‘traditional’ cost allocation (R’000)

\[
\begin{align*}
8250 - 712 & \quad \text{OR} \quad 7538000 \\
= 0.6666 & \quad \text{R5 000}
\end{align*}
\]

\[
= R11307 = 1508 \text{ units}
\]

Based on ABC (R’000)

\[
\begin{align*}
R6060 & \quad \text{OR} \quad R6060000 \\
0.6034 & \quad \text{R4 525}
\end{align*}
\]

\[
= R10043 = 1340 \text{ units}
\]

Inventory turnover:

<table>
<thead>
<tr>
<th></th>
<th>BFN</th>
<th>BR</th>
<th>LR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6300</td>
<td>3750</td>
<td>17600</td>
</tr>
<tr>
<td></td>
<td>1475</td>
<td>950</td>
<td>2550</td>
</tr>
</tbody>
</table>

\[
= 4.27 \quad 3.95 \quad 6.90
\]

Gross profit

\[
\begin{align*}
21000 - 6300 & \quad 11250 - 3750 \\
21000 & \quad 11250 \\
44000 - 17600 & \quad 441000
\end{align*}
\]

\[
= 70\% \quad 66.7\% \quad 60\%
\]

Turnover (in R’000) per m²

<table>
<thead>
<tr>
<th></th>
<th>BFN</th>
<th>BR</th>
<th>LR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>21000</td>
<td>11250</td>
<td>44000</td>
</tr>
<tr>
<td></td>
<td>16400</td>
<td>10000</td>
<td>14400</td>
</tr>
</tbody>
</table>

\[
= 1.28 \quad 1.125 \quad 3.06
\]

For calculating a minimum of any 3 indicators

Calc max 10

Comment:

- The method of allocation influences BRD’s profitability, as can be seen from both the profit statement and BEP using ABC. At this stage, in terms of an ABC approach, BRD is generating a profit.
- BRD exceeded its target inventory turn comfortably – better than Breakfast Nook.
- The Margin of this department (GP/Contribution) is again the second best.
- The impact of follow-up orders should be considered ie customer ordering first from one department and then another.
- The use of space lags that of BFN marginally
- This department should not be closed
Other factors to consider above:

One would need to do a relevant costing exercise in deciding finally on the closure or not of the division.

Based on an ABC approach, which would be the more realistic of the two, a positive margin of safety exists which indicates that more units are being sold than are required to break even – this would also explain the profitability of BRD at this stage.

(c) Strategic issues

Customers:

- It appears that transactions are on a cash basis. Will the provision of credit improve turnover? This will however need to be financed.
- Are guarantees / warranties given and if so what is the cost thereof or the cost of replacement products.
- Are customers kept on a database and provided with promotional information.
- What is the extent of repeat customers?
- What is the extent of multiple department support?
- Is customer satisfaction measured?
- Which products are bought most – Scandinavian (imported) or local (own manufactured)?

Consultants:

- What is the ratio of successful consultations to total consultations?
- Do consultations add value in respect of an increased sales value per order or repeat orders. This would require an analysis of sales per consultant to be prepared.
- Are the consultants knowledgeable across the three departments or specialists?

(d) Structure change – remuneration

Cost saving = \((R1\ 359 + R400) \times 50\%\)
= R879,5

4% Commission = 11 250 \times 0,04
= 450

Additional sales = \((879,5 - 450)\)
\(,04\)
= 10 737

Total sales = 11 250 + 10 737 = R21 987,5 \(\text{(OR R879,5 / 0,04)}\)

At this level, staff will be in the same position, but the department will be better off as the GP/Contribution will exceed the commission.

At levels above R21 987,5 the department and staff will be better off.

Max 4
(e) **Impact of current production level**

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal capacity</td>
<td>45 000 units</td>
</tr>
<tr>
<td>Normal capacity hours</td>
<td>27 000 hours</td>
</tr>
<tr>
<td>Budgeted time p.c.</td>
<td>0.6</td>
</tr>
<tr>
<td>FOH – budgeted (x R60)</td>
<td>R2 700 000</td>
</tr>
<tr>
<td>Under recovery</td>
<td>R1 080 000</td>
</tr>
<tr>
<td>40% x R2 700 000</td>
<td>R1 080 000</td>
</tr>
<tr>
<td>Additional cost per unit</td>
<td>R40</td>
</tr>
<tr>
<td>(OR new rate = R60 + R40 = R100)</td>
<td></td>
</tr>
</tbody>
</table>

- Based on the current cost structure, Lindela should recover the additional R40 per unit.
- If they don’t, their margin is not as presented.
- Standard margin (1 160 – 725) / 725 = 60% or 38% margin on selling price.
- If they wish to keep the margin intact, their price of R1 160 is incorrect.
- The budgeted profit for the year based on external sales only at normal capacity is 45 000 x (1 160 – 725) = R19,575m.
- Based on external sales (if all the current capacity was to be used for external sales), at the current capacity it will only be 27 000 x 435 – R1,080 = R10,665m.
- The incorrect price is passed on to group departments/divisions.

(f) **Strategic impact of holding 8 weeks inventory**

- Inventory on current production level: 27 000 x 0.15 m³ x 8/50 = 648 m³
  - Value 648 x 3 500 = R2 680 000
  - At full capacity (÷ 0.6) = R3 780 000

- The Mukwa is not readily available, therefore JIT and EOQ or other models cannot be applied.
- The factory can thus run up to 8 weeks or if capacity is ramped up a maximum of 4.8 weeks (648 / (45 000 / 50 x 0.15)) without any interruptions in production taking place.
- A storage facility for the above quantity is required, with safeguards and especially fire insurance.
- What safeguards for continuous supply are in place eg contracted suppliers.
- Strategically, the Lindela factory should consider whether substitute materials exist which could be used in the manufacturing of the product.
- The opportunity cost of holding the inventory needs to be considered.
- Any other valid comment – Max 1
### Production level after proposals

<table>
<thead>
<tr>
<th></th>
<th>Group</th>
<th>External</th>
<th>Export</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Current: 60% capacity</td>
<td>80</td>
<td>20</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>Normal capacity (0.8 x 0.6; 0.2 x 0.6)</td>
<td>48</td>
<td>12</td>
<td>0</td>
<td>60</td>
</tr>
<tr>
<td>Design change (0.48 x 1.25; 0.12 x 1.67)</td>
<td>60</td>
<td>20</td>
<td>10</td>
<td>90</td>
</tr>
<tr>
<td>Price decrease (factor 1.10)</td>
<td>66</td>
<td>22</td>
<td>10</td>
<td>98</td>
</tr>
</tbody>
</table>

### Alternative

<table>
<thead>
<tr>
<th></th>
<th>Lifestyle units</th>
<th>External units</th>
<th>Export units</th>
<th>Total units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current sales</td>
<td>21 600</td>
<td>5 400</td>
<td>-</td>
<td>27 000</td>
</tr>
<tr>
<td>Design change</td>
<td>5 400</td>
<td>3 600</td>
<td>4 500</td>
<td>13 500</td>
</tr>
<tr>
<td>Price decrease (10% increase)</td>
<td>2 700</td>
<td>900</td>
<td>3 600</td>
<td>44 100</td>
</tr>
</tbody>
</table>

Within the normal capacity of 45 000 units
44 100 / 45 000 = 98%

### Prices after the proposal:

Group: R1 160 – (56 – 26)

<table>
<thead>
<tr>
<th></th>
<th>=</th>
<th>R1 130,0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less 5%</td>
<td></td>
<td>56,5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 073,5</td>
</tr>
</tbody>
</table>

External: R1 160 less 5%

<table>
<thead>
<tr>
<th></th>
<th>=</th>
<th>R1 102,0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Export: R1 160 less 10%</td>
<td>=</td>
<td>R1 044,0</td>
</tr>
<tr>
<td>@ rate of R10,8 = €1</td>
<td>=</td>
<td>€96,7</td>
</tr>
<tr>
<td>Max</td>
<td>=</td>
<td>8</td>
</tr>
</tbody>
</table>

### Mark-up % on units transferred

FOH need not change as capacity per (g) is 90% plus

<table>
<thead>
<tr>
<th></th>
<th>=</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard cost given</td>
<td></td>
<td>725,00</td>
</tr>
<tr>
<td>Additional material</td>
<td></td>
<td>45,00</td>
</tr>
<tr>
<td>Packaging saved</td>
<td></td>
<td>(30,00)</td>
</tr>
<tr>
<td>Total cost</td>
<td></td>
<td>740,00</td>
</tr>
<tr>
<td>Transfer sales price per (g)</td>
<td>1 073,50</td>
<td></td>
</tr>
<tr>
<td>Mark-up (R)</td>
<td>=</td>
<td>333,50</td>
</tr>
<tr>
<td>Mark-up (%) (333,50 / 740)</td>
<td></td>
<td>45,1 %</td>
</tr>
</tbody>
</table>
(i)

### IDC

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open bal</td>
<td>27 000 000</td>
<td>26 730 000</td>
<td>26 441 100</td>
<td>26 131 977</td>
<td>25 801 215</td>
</tr>
<tr>
<td>Interest</td>
<td>7%</td>
<td>1 890 000</td>
<td>1 871 100</td>
<td>1 850 877</td>
<td>1 829 238</td>
</tr>
<tr>
<td>Pmt</td>
<td>40%/5</td>
<td>(2 160 000)</td>
<td>(2 160 000)</td>
<td>(2 160 000)</td>
<td>(2 160 000)</td>
</tr>
<tr>
<td>Closing bal</td>
<td>26 730 000</td>
<td>26 441 100</td>
<td>26 131 977</td>
<td>25 801 215</td>
<td>25 447 300</td>
</tr>
</tbody>
</table>

**Alternative:**

\[
\begin{align*}
n &= 5; \quad i = 7; \quad PV &= 27 000 000; \quad pmt = (2 160 000) \\
\text{Comp FV} &= 25 447 300
\end{align*}
\]

### Euro loan

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open bal (€)</td>
<td>10,8</td>
<td>2 500 000</td>
<td>2 537 500</td>
<td>2 575 563</td>
<td>2 614 196</td>
</tr>
<tr>
<td>Interest (€)</td>
<td>1,5%</td>
<td>37 500</td>
<td>38 063</td>
<td>38 633</td>
<td>39 213</td>
</tr>
<tr>
<td>Closing bal (€)</td>
<td>2 537 500</td>
<td>2 575 563</td>
<td>2 614 196</td>
<td>2 653 409</td>
<td>2 693 210</td>
</tr>
</tbody>
</table>

**Alternative:**

\[
\begin{align*}
n &= 5; \quad i = 1,5; \quad PV &= 2 500 000 \\
\text{Comp FV} &= 2 693 210
\end{align*}
\]

**Cash available for the project (Loan amount less cost)**

**Option A:**

Cost = R27 000 000 x 5% = R1 350 000
Cash = R27 000 000 – R1 350 000 = **R25 650 000**

**Option B:**

Cost = €100 000 x R10,80 = R1 080 000
Cash = R27 000 000 – 1 080 000 = **R25 920 000**

**Forward €/R exchange rate for 5 year pmt**

Exchange rate required: 
\[
\frac{R25 447 300}{€2 693 210} = 9,45
\]
(j) Issues regarding options A and B

(i) Option A
- Option A generates interim cash flows over the 5-year period (from DTI).
- The grant payment would be subject to conditions - how onerous can these become?
- The interest rate is fixed but low (below OD rates), a change in interest rates will not impact on their planning. Decreasing interest rates would create interest rate risk for the company.
- Planning (above) re final settlement can be done and monitored throughout the term. Will there be adequate cash available for final bullet payment?
- There is no currency impact.

Option B
- Interest rate below that of option A but is in Euro terms – in terms of interest parity principles any benefit of lower interest rates in one country would be eliminated through foreign exchange differences.
- Most currency hedges, hedging the repayment in year 5, will only be available one year before it is due.
- Will there be adequate cash available for payment at end of 5 years?
- Can their product be exported to Europe?
- What measurable benefit can be derived from special status?

(ii) Joint venture
- Is the JV administered by way of contract in terms of:
  - shareholding – would they need to take up shares in the JV entity?
  - assets contributed – what assets and what is the value thereof, which Anani would need to contribute to the JV?
  - security provided for loans/facilities – what is the extent of the security to be provided on behalf of the JV?
  - additional funding required (R8m) – where will the funding be sourced from and at what cost?
  - existing and new staff – will additional people be able to be recruited?
  - termination – when will the JV terminate?
  - Any other valid point – Max (1)

Max 7

Max 5