

3(a) **Explain two benefits and two limitations of CC using batch production.**

Award 1 mark for each relevant benefit/limitation (max 4).

Award 1 additional mark for **each** explanation of the benefit/limitation **applied to this context**.

Relevant benefits might include:

- Flexible way of working – can easily change to produce cookies for different **special occasions**
- More variety in tasks than if flow production is used – better motivation for the **10 production employees**
- More variety of products produced - to have **personal messages** written on them
- Production may not be affected too much if **baking equipment** breaks down
- Larger quantity produced than job production – can keep restocking the shop with full **variety of cookies**
- Raw materials can be purchased in larger quantities than job production so gain discounts / economies of scale / lower unit cost of **fresh ingredients**

Relevant limitations might include:

- Can be expensive / awkward to move part-finished goods around the factory – **the business is only small**
- Machines have to be reset between batches – takes time / delays production for the new **Operations Manager**
- One mistake in production may mean the whole batch is affected / needs to be thrown away – wasted **ingredients**
- Warehouse space needed - for finished batches stored before being sold in CC's **shop**
- Size of batch may be too small – not enough **cookies** to meet demand / may be too large / left over cookies if not popular
- May be more repetitive than job production – **10 production workers** may become bored

For example: Flexible way of working (1) and can easily change the production process to produce different types of cookies (app).

Application could include: cookies; sells at own shop; messages put on cookies; 10 production employees; 5 shop employees; Operations manager; fresh ingredients; special occasions; small business; sole trader; established for 5 years; competitors' products sold in retail shops in other cities, personalised messages.

3(b) **Consider the two options for CC's new cookies outlined in Appendix 3. Which option should CC choose to produce? Justify your answer using appropriate calculations.**

| Level | Description                                                                                                                                                                                                                                                                                                                                                                                                                      | Marks       |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| 3     | <p>Sound application of knowledge and understanding of relevant business concepts using appropriate terminology.</p> <p>Detailed discussion of <b>both</b> products.</p> <p>Well-justified recommendation.</p> <p>Candidates discussing both products in detail, in context and with a well-justified recommendation, including why the alternative product was rejected, should be rewarded with the top marks in the band.</p> | <b>9–12</b> |
| 2     | <p>Sound application of knowledge and understanding of relevant business concepts using appropriate terminology.</p> <p>Detailed discussion of at least <b>one</b> product.</p> <p>Judgement with some justification / some evaluation of choice made.</p> <p>Candidates discussing both products in detail and applying them to the case should be rewarded with the top marks in the band.</p>                                 | <b>5–8</b>  |
| 1     | <p>Limited application of knowledge and understanding of relevant business concepts.</p> <p>Limited ability to discuss the products with little / no explanation.</p> <p>Simple judgement with limited justification / limited evaluation of choice made.</p> <p>Candidates outlining both products in context should be rewarded with the top marks in the band.</p>                                                            | <b>1–4</b>  |
| 0     | No creditable response.                                                                                                                                                                                                                                                                                                                                                                                                          | <b>0</b>    |

3(b)

Relevant points might include:

|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Option 1       | <ul style="list-style-type: none"> <li>Sales are higher by 6500 per month – <b>8000 compared to 1500</b></li> <li>Total cost is \$7000 per month</li> <li>Total revenue is \$8000 per month</li> <li>Profit per month is \$1000, \$500 less than Option 2</li> <li><b>Forecast growth is high</b> so revenue in the future should increase</li> <li>Gross profit margin 50%</li> <li>Profit margin 12.5%</li> <li>Break-even output 6000 cookies a month, <b>2000 less</b> than predicted sales</li> </ul>                                                          |
| Option 2       | <ul style="list-style-type: none"> <li>Total revenue \$7500</li> <li>Total cost is \$6000 per month with <b>same fixed cost of \$3000 and variable cost of \$2 per cookie</b></li> <li>Profit per month is \$1500</li> <li><b>Forecast low growth</b> so revenue in the future may not increase</li> <li>Gross profit margin 60%</li> <li>Profit margin 20%</li> <li>Break-even output 1000 cookies a month, <b>500 less</b> than the predicted sales</li> </ul>                                                                                                    |
| Recommendation | <p>Justification might include:</p> <ul style="list-style-type: none"> <li>Option 1 is the better one to choose as the revenue is higher by \$500 than Option 2. Even though its profit is \$500 per month lower than Option 2 it has <b>high future growth opportunities</b> and could earn higher revenue and higher profit in the future.</li> <li>Option 2 is better than Option 1 as it has a higher profit by \$500 per month. The gross profit margin and profit margin are both higher giving more profit from the sale of each Option 2 cookie.</li> </ul> |