



ADVANCED GCE
BUSINESS STUDIES
Business Production

F296/RB

RESOURCE BOOKLET

Monday 25 January 2010
Afternoon

Duration: 2 hours

To be given to candidates at the start of the examination.



INSTRUCTIONS TO CANDIDATES

- The information required to answer questions 1 – 6 is contained within this Resource Booklet.
- Do not hand this Resource Booklet in at the end of the examination. It is not needed by the examiner.

INFORMATION FOR CANDIDATES

- This document consists of 4 pages. Any blank pages are indicated.

Café Black (UK) Ltd

Café Black (UK) Ltd is based in the Midlands and produces a range of 'state of the art' coffee machines that produce high quality, bean-to-cup, coffee. It has a number of long term contracts to supply machines, and their subsequent maintenance, exclusively to some of the biggest high street coffee outlets in Europe and the USA.

The market has changed rapidly over the last ten years. Demand, following television programmes such as *Friends*, has escalated to the extent that huge numbers of people in the UK want a 'proper' cup of coffee, including lattes, cappuccinos and mochas. As tastes continue to change in terms of the size of drink, flavours, variable milk contents and so on, it is vital that Café Black's coffee machines are designed with the inherent flexibility to cope with a changing market. Allocating a substantial budget for research and development, as well as the use of techniques such as value analysis, are seen as crucial to staying ahead of the competition. 5 10

Café Black's factory, by the very 'high-tech' nature of what it produces, is necessarily up to date – using some of the latest in robotics, CAD systems and stock control software. The factory employs 18 staff each of whom work directly on the production of coffee machines. There are a number of stages involved in building each coffee machine unit as various parts are assembled within the unit's shell. Each unit moves along one of three different production lines. Each production line produces a range of different sizes of units and uses a combination of computer controlled cutting, soldering, riveting, assembly and fitting equipment. There are large gains from specialisation and the division of skilled labour. Indeed, the workforce is highly productive at its specific tasks and enjoys the 'problem solving' and intricate nature of much of the work which is undertaken. Different staff even become 'specialists' at different models of coffee machine and the different demands that each model throws up. Mike Small, Café Black's Operations Director, encourages job rotation and the sharing of skills to the extent that it is feasible, but it is not always possible given the sheer variety and complexity of the tasks. 15 20 25

Mike is keen to locally source as many components as he can. Although he does not like to hold vast quantities of components, he is aware that a shortage of just one key part will delay production of an entire batch of coffee machines. The reliable supply of components is absolutely essential. 30

Café Black boasts a short lead time between order and delivery of its coffee units, but it is, to some extent, constrained by the method of production. Unless there is a highly lucrative 'one-off' order – in which case it deploys job production – Café Black delays production of machines until it can make a batch of a significant quantity, thus achieving various economies of scale and minimising down time. Depending on the model being produced, the factory's normal weekly output is approximately 80 machines. Mike believes it prudent, in terms of stock control, to actually produce a number of a particular model in order to make up a decent sized batch, even though it is not part of a customer order. These then become stock to meet potential, but not actual, demand. There is an element of risk to this strategy, but Mike believes that the costs of this approach are easily outweighed by the savings made on production. 35 40

The biggest concern facing Mike is one of quality control. Whether it is the fault of the technology, staff or suppliers, Café Black experiences a worryingly high 12% 'reject rate'. Faults in 'reject' coffee machines are discovered during production or, more disturbingly, after delivery to customers. The costs of recalling machines, providing temporary replacements and even 'compensation' are potentially huge. Given the expensive precision engineered components, a full scrapping is not considered an option, but re-working is very costly indeed. Mike sees a dramatic reduction of this reject rate as his prime aim for the coming months. 45

Café Black's most recent development is the CN17 – a slick, push button, bean-to-cup, self cleaning machine selling at a standard price of £8,500 a unit. The factory is half way through a large production run of 480 CN17 machines – all paid for on deposit from 22 different customers. It has proved unbelievably popular, even though it has not been tested 'live' for any sustained period of time. There is also a whisper that a very large multi-national coffee outlet chain is considering switching all machines to the CN17. This would, if it transpired, have major implications for Café Black, not least being that the factory already operates at about 90% capacity.

With all of this to consider, Mike has now been told by Café Black's Managing Director of an offer which had been made from *Green Bean*, a new up-and-coming coffee outlet franchise. *Green Bean* has offered to buy a staggering 60 CN17 machines from Café Black, but is only prepared to pay a price of £7,000 each, including delivery. At a time when Mike feels that his production is already considerably stretched, he is worried about the potential impacts of taking on more orders. He is sure his staff will not want to work longer hours and the preventative maintenance programme he had planned would need to be shelved. Taking on this order may well affect Café Black's ability to produce sufficient coffee machines to meet orders from its existing customers. Marketing issues, albeit not part of Mike's remit might also arise. Mike has, however, been asked by the Managing Director to look at Café Black's production costs.

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