A LEVEL BUSINESS - UNIT 4: OPERATIONS MANAGEMENT

3-MARK WORKSHEET - ANSWER KEY

CIE-style model answers: one clear point followed by developed explanation/business consequence. Equivalent well-developed answers should also be credited.

NATURE OF OPERATIONS

1. Explain one reason why operations management is important to a business. [3]

Model answer: Operations management organises inputs such as labour, land and capital to produce goods or services efficiently. Better use of these resources can reduce production costs, which may increase added value and competitiveness.

2. Explain one way in which training employees can improve operations. [3]

Model answer: Training increases employees' skills and ability to perform tasks effectively. This can raise labour productivity, so more output is produced from the same workforce and average costs may fall.

3. Explain one way in which operations management can add value. [3]

Model answer: Operations management can improve efficiency and reduce the cost of producing a product. If the selling price remains unchanged, the gap between selling price and input cost increases, so added value rises.

4. Explain one way in which increasing productivity can improve competitiveness. [3]

Model answer: Higher productivity means more output is produced from a given level of inputs. This can reduce average cost per unit, allowing the business to lower prices or earn a higher profit margin and compete more effectively.

5. Explain one benefit to a business of increasing labour productivity. [3]

Model answer: Higher labour productivity means each worker produces more output. Labour costs are therefore spread over more units, which can reduce the average labour cost per unit.

6. Explain one difference between efficiency and effectiveness. [3]

Model answer: Efficiency is concerned with using inputs productively and minimising waste, whereas effectiveness is concerned with achieving objectives or meeting customer needs. A business could therefore be efficient but ineffective if it produces an unwanted product.

7. Explain one advantage of job production. [3]

Model answer: Job production allows a product to be made to an individual customer's requirements. This customisation can increase the value customers place on the product, allowing the business to charge a higher price.

8. Explain one disadvantage of batch production. [3]

Model answer: Batch production may create high work-in-progress inventory because a batch can wait before moving to the next production stage. This ties up working capital and may increase inventory-holding costs.

9. Explain one advantage of flow production. [3]

Model answer: Flow production allows large quantities of standardised products to be produced continuously. This can increase productivity and spread fixed costs over many units, reducing unit costs.

10. Explain one advantage of mass customisation. [3]

Model answer: Mass customisation allows a business to offer product variations while still producing at relatively high volume. Customers receive products closer to their individual requirements while the business can retain relatively low unit costs.

CAPACITY UTILISATION

1. Explain one reason why capacity utilisation is important to a business. [3]

Model answer: Capacity utilisation shows the proportion of maximum productive capacity currently being used. Managers can use this information to assess operational efficiency and decide whether capacity needs to be increased or reduced.

2. Explain one benefit of operating at a high rate of capacity utilisation. [3]

Model answer: At high capacity utilisation, fixed costs are spread over a larger quantity of output. This lowers average fixed cost per unit and may increase profit if other factors remain unchanged.

3. Explain one reason why a business may not want to operate at 100% capacity for a long period. [3]

Model answer: At 100% capacity there is no spare capacity to deal with unexpected orders or operational problems. Customers may face delays or be turned away, which could lead to lost sales.

4. Explain one problem employees may experience when a business operates at full capacity. [3]

Model answer: Employees may face heavier workloads and pressure when the business operates at full capacity. This can increase stress and fatigue, which may reduce productivity or quality over time.

5. Explain one reason why a business may deliberately keep some spare capacity. [3]

Model answer: Spare capacity allows a business to respond to an unexpected increase in demand. Extra orders can therefore be accepted rather than turned away, reducing the risk of lost sales.

6. Explain one reason why low capacity utilisation can increase unit fixed costs. [3]

Model answer: When capacity utilisation is low, fixed costs such as rent are spread over fewer units of output. Average fixed cost per unit therefore increases.

7. Explain one possible cause of short-term excess capacity. [3]

Model answer: A temporary or seasonal fall in demand can reduce the amount a business needs to produce. Existing resources are then underused, creating short-term spare capacity.

8. Explain one advantage of rationalisation when there is long-term excess capacity. [3]

Model answer: Rationalisation can close unnecessary production units and reduce overhead costs. Output can then be concentrated in the remaining facilities, increasing their capacity utilisation.

9. Explain one advantage of using subcontractors to deal with a capacity shortage. [3]

Model answer: Subcontractors can provide additional productive capacity without the business investing in permanent new facilities. This gives flexibility if the increase in demand turns out to be temporary.

10. Explain one reason why failing to expand capacity in a growing market could harm a business. [3]

Model answer: If capacity is not expanded, the business may be unable to meet increasing customer demand. Customers may buy from competitors instead, reducing sales and potentially market share.

MANAGING INVENTORY & JUST-IN-TIME (JIT)

1. Explain one reason why a manufacturing business may hold inventories of raw materials and components. [3]

Model answer: Holding raw materials allows them to be sent to the production line quickly when required. This reduces the risk that production stops because essential inputs are unavailable.

2. Explain one cost to a business of holding high levels of inventory. [3]

Model answer: High inventory ties up working capital that could have been used elsewhere, such as buying equipment or repaying loans. The business therefore faces an opportunity cost from holding the inventory.

3. Explain one benefit to a business of holding inventory. [3]

Model answer: Holding finished-goods inventory allows a business to meet an unexpected increase in demand immediately. This reduces the risk of losing sales because products are unavailable.

4. Explain one reason why a business may hold buffer inventories. [3]

Model answer: Buffer inventory protects the business against uncertainty in deliveries or demand. If a supplier is late, production can continue using the buffer inventory rather than stopping.

5. Explain one reason why a long lead time may increase the re-order inventory level. [3]

Model answer: If suppliers take longer to deliver, the business must place an order while more inventory is still available. A higher re-order level reduces the risk of inventory running out before the new delivery arrives.

6. Explain one benefit of effective supply chain management to a business. [3]

Model answer: Effective supply chain management can improve coordination with suppliers and reduce the time and cost of moving materials through production. This can lower operating costs and improve profitability.

7. Explain one advantage of using just-in-time (JIT) inventory management. [3]

Model answer: JIT keeps buffer inventories very low or at zero, so less capital is tied up in inventory. Inventory storage and opportunity costs are therefore reduced.

8. Explain one disadvantage of using just-in-time (JIT) inventory management. [3]

Model answer: JIT depends on supplies arriving exactly when needed. If a supplier or transport system is delayed, the business may run out of components and production may stop, causing lost output and additional costs.

9. Explain one reason why excellent supplier relationships are important for JIT to operate successfully. [3]

Model answer: JIT requires suppliers to make reliable deliveries at short notice because there is little or no buffer inventory. A strong supplier relationship increases the chance that the correct materials arrive on time and production can continue.

10. Explain one reason why accurate demand forecasts are important for JIT to operate successfully. [3]

Model answer: With little or no buffer inventory, the business must plan production and component requirements carefully. Accurate forecasts help it order the right quantity at the right time, reducing the risk of shortages or production delays.