# Check In test

# Business operations

## Questions

1. Which of the following would **not** be the focus of an operations management objective?

(a) Capacity utilisation

(b) Output level

(c) Sales target

(d) Wastage rate

 **[1]**

1. AP Pop Ltd manufactures fizzy drinks.

Which of the following would be an example of process innovation at AP Pop Ltd?

(a) Choosing to purchase ingredients in bulk, which lowers production costs

(b) Improving production methods, which increases productivity

(c) Launching a new flavour, which boosts sales

(d) Using a new type of container, which adds value

 **[1]**

1. An Operations Manager has estimated the following figures for a unique project which the company is undertaking:

 Optimistic time (O): 5 weeks

 Most likely time (M): 6 weeks

 Pessimistic time (P): 13 weeks

 What is the PERT estimated expected duration of the project?

(a) 4 weeks

(b) 6 weeks

(c) 7 weeks

(d) 8 weeks

 **[1]**

1. At full capacity a factory is able to manufacture 18,000 clocks per month. In 2015 it produced 170,000 clocks.

 The average capacity utilisation of the factory in 2015 was:

(a) 6.6%

(b) 78.7%

(c) 94.4%

(d) 127.1%

**[1]**

1. Which of the following is an example of offshoring?

(a) A UK bookstore setting up an e-commerce website and trading internationally

(b) A UK grocery wholesaler buying stock from abroad

(c) A UK utility company transferring its customer call centre to India

(d) A UK watch manufacturer leaving the UK and relocating to Switzerland

 **[1]**

1. Which of the following businesses is most likely to be situated close to the market it serves?

(a) A leisure centre

(b) A livestock farm

(c) A pottery

(d) A tea plantation

 **[1]**

1. Logistics is concerned with:

(a) cell production

(b) contingency planning

(c) local government reports and statistics

(d) the movement of physical materials **[1]**

1. Which of the following could be used by a retailer to measure the quality of its service provision?

(a) Capacity utilisation

(b) Complaints analysis

(c) Gross profit margin

(d) Total quality management

 **[1]**

1. What is a distribution centre? **[2]**

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1. Explain **two** environmental factors which an Operations Director might factor into
corporate strategy. **[4]**

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1. (a) Complete the network diagram below by inserting the earliest start times

(EST) and latest finish times (LFT) into nodes 2 – 5. **[4]**

(b) Identify the critical path. **[1]**

(c) State **one** limitation of critical path analysis. **[1]**

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## Mark Scheme

| **Question** | **Answer** | **Marks** | **AO** | **Rationale** |
| --- | --- | --- | --- | --- |
|  |  | **(c)** | **1** | **1** | **(a)** The usage of a business’ production resources is within the remit of operations management.**(b)** Output targets are at the nub of operations management and are commonplace objectives.**(c) Correct answer:** This would be an objective set by sales, operations management is concerned with output.**(d)** It is the role of operations management to minimise wastage, so this is frequently a target set. |
|  |  | **(b)** | **1** | **1** | **(a)** This would be an example of an internal economy of scale.**(b) Correct answer:** Process innovation involves altering the way something is done.**(c)** A new flavour is product development, it may be innovative but if it is product innovation not process innovation.**(d)** This is product innovation, rather than process innovation. |
|  |  | **(c)** | **1** | **2** | **(a)** Candidate does not multiply M by 4. So erroneously calculates as (5 + 6 + 13)/6 = 4.**(b)** Candidate erroneously believes PERT expected duration is the same as most likely time (M).**(c) Correct answer:** Pert estimated duration = (O +4M + P)/6. Therefore (5 + 24+ 13)/6 = 7.**(d)** Candidate erroneously believes PERT estimated duration to be the difference between pessimistic and optimistic time, therefore 13 – 5 = 8. |
|  |  | **(b)** | **1** | **2** | **(a)** Candidate calculates the correct capacity utilisation figure of 79.7 but then erroneously divides by 12 because average capacity utilisation is required.**(b)** **Correct answer:** Capacity utilisation = actual output/maximum output. As a percentage: 170,000/(18,000 x 12) x 100 = 79.7%**(c)** Candidate makes a mistake with the zeroes in the actual output and calculates 17000/18000 x 100**(d)** Candidate inverts the formula believing capacity utilisation to be maximum output/actual output. |
|  |  | **(c)** | **1** | **1** | **(a)** Selling abroad/Exporting**(b)** This is importing**(c) Correct answer:** Offshoring refers to the transferring of part of the business’ operations to overseas.**(d)** The entire business has moved.  |
|  |  | **(a)** | **1** | **1** | **(a) Correct answer:** It is a service industry that needs to be near its clients who physically enter the building.**(b)**  Situated on land which is suitable, irrespective of market it is trading in.**(c)** Traditionally industries using heavy clay were based close to canals. Location decisions more likely to be driven by raw material sources than customer location.**(d)** This is the source of the raw materials. |
|  |  | **(d)** | **1** | **1** | **(a)** Cell production is about working in teams to perform a particular task.**(b)** Contingency planning is about planning for things that may go wrong.**(c)** Candidate confuses the term ‘logistics’ with a pseudo expression for ‘local statistics’.**(d) Correct answer:** The movement of physical materials from raw materials in until finished goods reach the consumer. |
|  |  | **(b)** | **1** | **1** | **(a)** This is used to calculate the use of available resources not customer satisfaction with service provision.**(b) Correct answer:** The number of complaints that a retailer receives gives a good indicator of the quality of its service provision.**(c)** Profit levels give a vague idea of customer satisfaction but profit margin does not even do that . **(d)** TQM is concerned with the efficient use of resources, rather than with customer satisfaction with service provision. |

| **Question** | **Answer** | **Marks** | **Guidance** |
| --- | --- | --- | --- |
| **9** |  |  | Up to two marks. | **2**(AO1 2) | Indicative content:* warehouse stocked for distribution to wholesalers, retailers or direct to the consumer
* make stock available for fast, effective distribution
* sub-warehouse/branch warehouse/not main factory warehouse
* regionally/strategically positioned.

**No** context required.Exemplar response:A warehouse strategically positioned (1) so that is it offers fast delivery times when orders are received (1). |
| **10** |  |  | One mark for each correct identification, to a maximum of two identifications plus a further one mark for each of two explanations. | **4**(AO1 4) | Indicative content:* carbon emissions/carbon offsetting
* use of clean energy
* energy consumption
* greener transportation
* air miles/food miles
* recycling
* pollution
* global warming
* traffic congestion
* use of environmentally friendly products
* use of sustainable resources.

Exemplar response:An Operations Director might wish to factor the use of environmentally transportation methods (1) into corporate strategy. In regards to logistics this may mean using more aerodynamic trucks, minimising harmful particulate outputs or changing the mode of transport used to distribute finished goods altogether (1). |
| **11** | **a** |  | One mark for each node (correct EST and LFT), to a maximum of four correct nodes. | **4**(AO2 4) | Network diagramDo **not** award node 1. |
| **11** | **b** |  | For one mark. | **4**(AO1 2)(AO2 2) | Indicative content:* A, B, D

Award answers shown on the diagram. |
| **11** | **c** |  | One mark for a correct identification. | **1**(AO1 1) | Indicative content:* relies on accuracy of activity times
* relies on accuracy of activity dependencies
* could encourage quality to be sacrificed for time on critical activities
* only considers timing of events
* does not consider costs
* quantitative only
* does not guarantee the success of the project.
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