

CIPS Level 6 – Professional Diploma in Procurement and Supply

Supply Network Design [L6M9]

Sample Exam Questions (Objective Response)

The correct answer will be listed below each question

Q1. Major Components Group (MCG) is conducting a strategic review of its supply base and the effectiveness of its entire supply network. Within the MCG corporate strategy, the business has the objective of growing revenues significantly by increasing production, both of existing and new products. To achieve this objective, which of the following will be the most important factor for MCG when considering its future supply network design?

- a) Regulation
- b) Demand
- c) Technology
- d) Capacity

LO: 1

AC: 1.1

Correct answer: D

Q2. Which of the following are key questions to address when assessing if an organisation's operations strategy aligns both with the market and the organisation's available resources?

1. What skills gaps exist within our manufacturing team?
2. When will the board expect payback on the investment?
3. How much future demand will there be for our products?
4. How many products have we produced over the last ten years?

- a. 1 and 2 only
- b. 2 and 4 only
- c. 1 and 3 only
- d. 3 and 4 only

LO: 2

AC: 2.1

Correct answer: C

Q3. Developing a timetable for work that needs to be carried out, and planning the precise order in which the work is undertaken, involves which of the following activities?

1. Translating
 2. Scheduling
 3. Loading
 4. Sequencing
-
- a. 1 and 2 only
 - b. 2 and 4 only
 - c. 1 and 3 only
 - d. 3 and 4 only

LO: 3

AC: 3.2

Correct answer: B

Q4. When undertaking break even analysis for capacity expansion, both fixed and variable costs should be considered. Is this **TRUE**?

- a. Yes, total costs multiplied by the payback period will provide the break-even point
- b. No, capacity expansion will only involve direct costs and financing charges
- c. Yes, all costs must be taken into account otherwise the analysis will be flawed
- d. No, fixed and variable costs do not include overheads which must be considered

LO: 1

AC: 1.3

Correct answer: C

Q5. As customer demand is frequently difficult to predict, strategic resource planning for a manufacturer needs only to be based on the organisation's knowledge of capacity availability. Is this **TRUE**?

- a. Yes, because the organisation can easily control capacity unlike demand which is external
- b. No, the organisation must tell customers when it has capacity available so they can order
- c. Yes, for manufacturers there is generally no point attempting to forecast customer demand
- d. No, this planning must also consider the likely demand for the organisation's products

LO: 3

AC: 3.1

Correct answer: D

Q6. A highly effective operations strategy can contribute towards the organisation's competitive advantage through which of the following? Select **ALL** that apply.

- a. Detailing requirements
- b. Increasing staff numbers
- c. Reducing costs
- d. Scheduling activities
- e. Improving product quality
- f. Understanding regulation
- g. Internal communications

LO: 2

AC: 2.1

Correct answer: C & E

Q7. The theory of constraints concept focuses on which of the following? Select **ALL** that apply.

- a. Potential bottlenecks
- b. Customer demand
- c. Data gathering
- d. Ineffective processes
- e. Strategy development
- f. Capacity limitations
- g. The value net

LO: 3

AC: 3.3

Correct answer: A, D & F

Q8. The concept of 'optimum capacity' has many different meanings depending on the context of application. In procurement and supply, it is well known that 'capacity' focuses on the supply side of the 'supply and demand' equation, with capacity being provided either internally or externally. This is part of the consideration within the classic make versus buy conundrum. However, utilising capacity effectively is an important element of operations management.

When calculating the organisation's 'optimum capacity', in a strategic supply chain design context, the procurement professional should focus mostly on which of the following elements?

1. Product life cycles
 2. Production volumes
 3. Costs of manufacture
 4. Systems integration
-
- a. 1 and 2 only
 - b. 2 and 3 only
 - c. 3 and 4 only
 - d. 1 and 4 only

LO: 1

AC: 1.3

Correct answer: B

Q9. Technology has been a disruptive agent of change for many years now, impacting both supply network design and structures. In business to consumer markets this change has had significant benefits for both the procurement organisation and its consumer customers. Which of the following is an example of this change?

- a. Disintermediation
- b. Insourcing
- c. Outsourcing
- d. Integration

LO: 1

AC: 1.1

Correct answer: A

Q10. ARC Engineering Group has undertaken a study of its supply chain networks, including detailed mapping and analysis. Its chief procurement officer (CPO) has recognised that leveraging the most effective networks can create sustainable competitive advantage for the organisation. How might it achieve this?

1. Having the most suppliers
2. Being the lowest cost producer
3. Improving speed to market
4. Introducing more product lines

- a. 1 and 2 only
- b. 2 and 3 only
- c. 3 and 4 only
- d. 1 and 4 only

LO: 1

AC: 1.1

Correct answer: B

Q11. A call centre has 40 full-time employees (FTEs). All staff work some overtime on most days, and the business itself is growing, so calls are forecast to increase significantly. The call centre's senior manager has been adopting a leading operations strategy. Has this been effective?

- a. No, staff should never have to work overtime
- b. Yes, all staff should be kept fully occupied every day
- c. Yes, staff will be encouraged to become more efficient
- d. No, there should be some spare capacity

LO: 2

AC: 2.1

Correct answer: D

Q12. Consumer Product International Group (CPIG) is a large multi-national organisation. It has a highly visible and recognisable brand around the world. Demand for its products is highly seasonal and, for some products, can be difficult to forecast accurately.

Accurate forecasting has become more challenging in recent years due to increasing competition and changing consumer needs. Its chief procurement officer (CPO) is highly risk-averse and so the operations strategy is to ensure maximum capacity availability, including holding inventories, even though this is rarely reached. What are the main trade-offs with this approach?

1. High fixed costs
 2. High working capital needs
 3. High mark-up
 4. High revenue growth
-
- a. 1 and 2 only
 - b. 3 and 4 only
 - c. 1 and 3 only
 - d. 2 and 4 only

LO: 2

AC: 2.3

Correct answer: A

Q13. Supply chain network configuration will be directly influenced by which of the following? Select **ALL** that apply.

- a. Residents
- b. Local banks
- c. Suppliers
- d. Customers
- e. The media
- f. Tax authority
- g. Consumers

LO: 1

AC: 1.2

Correct answer: C, D & G

Q14. A global group has several different individual businesses. Each business has a managing director who has a make versus buy decision to make, with input from the chief procurement officer (CPO). There is a key consideration of influence for each business and an important performance driver. These are set out below.

Business 1 – the key consideration is whether the requirement is core to the future long-term success of the business and consistent with its overall chosen direction. The performance driver is on meeting the very high standards of customers, to ensure the organisation's brand values are reflected and its positioning supported.

Business 2 - the key consideration is whether it is better to leverage the knowledge and expertise of the supply market as there are currently clear gaps in this area within the business. The performance driver is very much on ensuring customers' delivery expectations are met. Short timescales are common in the market and the ability to meet these is a source of competitive advantage.

Business 3 – the key consideration is around the potential benefits of removing high fixed costs and some overhead which could help the business. The performance driver is availability and reliability of the products.

Business 4 – the key consideration is the availability of suitable suppliers, their relative financial standing and how the business might handle business continuity. The performance driver is that forecasting is very difficult in this market as demand can be variable and unpredictable.

Business 5 – the key consideration is that the business has high volume requirements. Whilst the business has some potential to produce these volumes itself there could be issues around peak demand. The performance driver is individual unit pricing and the underlying breakdown of overheads per unit.

You are required to recommend the main make/buy consideration for each of the businesses for detailed consideration and suggest which performance driver should be prioritised.

Choose from these options and drag and drop your answers into the table below. **(10 marks)**

You can only use each option once

Dependability driver	Strategy
Finances	Resources
Flexibility driver	Cost driver
Risks	Quality driver
Speed driver	Capacity

Business	Make/buy consideration	Performance driver
1		
2		
3		
4		
5		

Q14 Continued ...

LO: 1
AC: 1.2

Correct answer:

Business	Make/buy consideration	Performance driver
1	Strategy	Quality driver
2	Resources	Speed driver
3	Finances	Dependability driver
4	Risks	Flexibility driver
5	Capacity	Cost driver

Q15. Major FM (MFM) is a large facilities management organisation delivering high value and often long-term contracts for both public and private sector organisations. Several years ago, it outsourced one of its largest operational units, Unit A, due to the need to cut costs. Initially, performance standards were maintained, and Unit A was one of MFM's best performing contractors. However, due to lack of investment by its new owner, performance is starting to decline.

MFM needs Unit A as it is delivering a 20-year government contract and it does not have an alternative supplier. MFM's chief procurement officer (CPO) has made a decision regarding Unit A, but before doing so had carefully analysed its capacity and fixed and variable costs. The CPO views it as the only viable option for the long-term delivery of the government contract and MFM's financial stability is now much stronger. Further, MFM's strategy is to grow both organically and through acquisition.

The CPO has already identified areas of improvement for Unit A, particularly in how it arranges, controls and optimises tasks and workloads. Improving this will be a priority for the CPO. Currently Unit A is too reactive based on historical demand and responding to changes as they arise. The CPO would like Unit A to be much more proactive and focused on predicted activities.

Q15 (i) Which of the following is mostly likely to have been the CPO's decision in respect of Unit A?

- a. Insourcing
- b. Offshoring
- c. Joint venturing
- d. Gain sharing

LO: 1
AC: 1.2
Correct answer: A

Q15 (ii) The analysis undertaken by the CPO regarding Unit A was ...

- a. macro analysis
- b. micro analysis
- c. competitor analysis
- d. break-even analysis

LO: 1

AC: 1.3

Correct answer: D

Q15 (iii) MFM's approach to Unit A is known as ...

- a. partnership integration
- b. vertical integration
- c. network integration
- d. resource integration

LO: 1

AC: 1.2

Correct answer: B

Q15 (iv) Which of the following is the CPO's priority area of improvement for Unit A?

- a. Smoothing
- b. Resourcing
- c. Scheduling
- d. Levelling

LO: 3

AC: 3.2

Correct answer: C

Q15 (v) The CPO wants Unit A to be more focused on which of the following regarding control?

- a. Supply
- b. Demand
- c. Push
- d. Transparency

LO: 3

AC: 3.3

Correct answer: C