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5.3 Lean production and quality management (HL)

Checklist

What you should know

By the end of this subtopic, you should be able to:

- define the following terms: (AO1)
    - lean production
    - waste
    - efficiency
    - continuous improvement (kaizen)
    - just-in-time (JIT)
    - cradle-to-cradle design/manufacturing
    - quality circle
    - benchmarking
    - total quality management (TQM)
    - Gantt chart
    - critical path analysis
- describe the following features of lean production: (AO1)
    - less waste
    - greater efficiency
- explain the following features of lean production: (AO2)
    - continuous improvement (kaizen)
    - just-in-time (JIT)
- explain the features of cradle-to-cradle design and manufacturing (AO2)
- distinguish between quality control and quality assurance (AO2)
- explain the following methods of managing quality: (AO2)
    - quality circle
    - benchmarking
    - total quality management (TQM)
- discuss the impact of lean production and total quality management (TQM) on an organisation (AO3)
- explain the importance of national and international quality standards (AO2)
- apply a Gantt chart in a given context (AO2) (HL)

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- prepare and analyse a critical path (network) diagram in a given context (AO4, AO2) (HL)

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