

National Testing Agency

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Operations Management

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Operations Management

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Sub-Section Id :	899514261
Question Shuffling Allowed :	Yes

Question Number : 1 Question Id : 89951413239 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

Which of the following are the characteristics of jumbled flow production process?

1. Can handle highly complex workflow
2. Suited when too many entities are not involved
3. Huge economies of scale
4. None of the above

Options :

- 89951451531. 1
- 89951451532. 2
- 89951451533. 3
- 89951451534. 4

Question Number : 2 Question Id : 89951413240 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

The tools and techniques used to analyze the operations of an organization depend on which of the following factors?

1. Industry in which the organization is operating
2. Type of products the organization is producing
3. Both 1 and 2
4. None of the above

Options :

89951451535. 1
89951451536. 2
89951451537. 3
89951451538. 4

Question Number : 3 Question Id : 89951413241 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Streamline Flow is **not** suggested for which of the following?

1. Pharmaceutical Drug Manufacturing
2. Cement Manufacturing
3. Ship Building
4. Food Processing

Options :

89951451539. 1
89951451540. 2
89951451541. 3
89951451542. 4

Question Number : 4 Question Id : 89951413242 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following is/are a characteristic(s) of streamlined flow?

1. Maintenance of such a system is critical
2. Uneven work times at each station can be handled easily
3. A break at one station would halt the entire flow
4. Both 1 and 3

Options :

89951451543. 1
89951451544. 2

89951451545. 3

89951451546. 4

Question Number : 5 Question Id : 89951413243 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which option describes the following operating systems in the increasing order of complexity; (A – Organising a football tournament, B – Manufacturing of half litre plastic bottles, C – Mobile phone assembling plant, D – Customised Wooden tables manufacturing)

1. A, B, C, D
2. D, C, A, B
3. C, D, A, B
4. B, C, D, A

Options :

89951451547. 1

89951451548. 2

89951451549. 3

89951451550. 4

Question Number : 6 Question Id : 89951413244 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

In a fast food joint, the owner has decided to replace the automated coffee dispenser with a person who makes coffee. This decision would result in

1. Increase the flexibility of service provided to the customers
2. Decrease the delivery time to the customers
3. Both
4. None

Options :

89951451551. 1
89951451552. 2
89951451553. 3
89951451554. 4

Question Number : 7 Question Id : 89951413245 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

In a service firm, the following decisions are taken. What would be the impact of such decisions on performance measures – Cost, Quality, Delivery and Flexibility

Decision 1 (D1): Training program for skill upgradation and Multiskilling of the workforce.

Decision 2 (D2): Standard Operating Procedures deployed at key steps in the process.

1. *D1* – No change in quality; *D2*- Increase in quality
2. *D1* – Increase in Quality; *D2*- Increase in cost
3. *D1* – Decrease in delivery; *D2*- Increase in delivery
4. *D1* – Increase in quality; *D2*- Increase in Delivery

Options :

89951451555. 1
89951451556. 2
89951451557. 3
89951451558. 4

Question Number : 8 Question Id : 89951413246 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

In a hospital, a nurse is hired exclusively to take care of handling the instruments and equipment during the surgery in the operations theatre. This action would result in

1. Decrease in the overall skillset of the nurses in the hospital
2. Decrease in the overall time for the surgery
3. Both 1 and 2
4. None of the above

Options :

89951451559. 1

89951451560. 2

89951451561. 3

89951451562. 4

Question Number : 9 Question Id : 89951413247 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The time taken for a potter to make a pot, starting from bringing the mud, loading it onto the potter wheel, turning the wheel to shape the pot, drying and heat treating the pot is 6 hours. He starts working daily at 8 AM. Assume no stock at the beginning. Which of the following statements is **True**

1. The time to deliver the first pot is the cycle time for the process
2. Cycle time cannot be determined
3. The cycle time will be greater than the throughput time when the batch size is 1.
4. None of the above

Options :

89951451563. 1

89951451564. 2

89951451565. 3

89951451566. 4

Question Number : 10 Question Id : 89951413248 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

A manufacturing system has output rate of 10 units/hour. A process with capacity of 10 units/hr, is increased to 20 units/hr, then which of the following is true?

1. Increase the output of the system to 20 units/hour
2. Increase the output of the system to at most 20 units/hour
3. There will definitely be an increase in the output of the system, but the quantity of increase cannot be determined with the given data
4. There may or may not be an increase the output as it is depending on the capacity of the rest of the processes

Options :

- 89951451567. 1
- 89951451568. 2
- 89951451569. 3
- 89951451570. 4

Question Number : 11 Question Id : 89951413249 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

In a worker paced assembly line, if the demand is 20/hr and the sum of processes time is 15 min, what is the minimum number of stations required to ensure a cycle time of 5 min?

1. 3
2. 4
3. 5
4. 1

Options :

- 89951451571. 1

89951451572. 2

89951451573. 3

89951451574. 4

Question Number : 12 Question Id : 89951413250 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

In a two-stage serial system, the orders arrive at a rate of 12/hr at the first stage and gets processed at 8/hr at the first stage. What is the arrival rate at the second stage?

1. 1.6/hr
2. 8/hr
3. 12/hr
4. 4/hr

Options :

89951451575. 1

89951451576. 2

89951451577. 3

89951451578. 4

Question Number : 13 Question Id : 89951413251 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following contributes to the bullwhip effect?

1. Many customers at the end of the supply chain
2. Many suppliers at the beginning of the supply chain
3. Many layers in the supply chain
4. All the above

Options :

89951451579. 1

89951451580. 2

89951451581. 3

89951451582. 4

Question Number : 14 Question Id : 89951413252 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

To reduce the bullwhip effect which of the following measures can be used?

1. Centralization of demand analysis
2. Consistent low pricing of products
3. Decreasing the number of layers in the supply chain
4. All the above

Options :

- 89951451583. 1
- 89951451584. 2
- 89951451585. 3
- 89951451586. 4

Question Number : 15 Question Id : 89951413253 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

In order to design a supply chain, which of the following will impact the decision?

1. Life cycle of the product
2. Variations in the product
3. Demand cycles
4. All of the above

Options :

- 89951451587. 1
- 89951451588. 2
- 89951451589. 3
- 89951451590. 4

Question Number : 16 Question Id : 89951413254 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Which of the following are the characteristics of a responsive supply chain?

1. Low margin
2. High margin
3. High propensity to stock out
4. Both 2 and 3

Options :

89951451591. 1

89951451592. 2

89951451593. 3

89951451594. 4

Question Number : 17 Question Id : 89951413255 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Which of the following products would need an efficient supply chain?

1. A paper product manufacturer
2. A high-end sports shoe company
3. A wrist-watch manufacturer
4. All the above

Options :

89951451595. 1

89951451596. 2

89951451597. 3

89951451598. 4

Question Number : 18 Question Id : 89951413256 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

If an organisation has taken over a firm that supplies raw material, which of the following costs would reduce?

1. Carrying cost
2. Ordering cost
3. Both
4. None

Options :

89951451599. 1

89951451600. 2

89951451601. 3

89951451602. 4

Question Number : 19 Question Id : 89951413257 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

What can we infer if a firm holds less inventory?

1. It deals with a smaller number of products
2. The firm has better forecasting and planning methods
3. The process design is not flexible
4. There is no communication between departments, customers and suppliers.

Options :

89951451603. 1

89951451604. 2

89951451605. 3

89951451606. 4

Question Number : 20 Question Id : 89951413258 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Which of the following statements does not relate to Kanban

1. Setting WIP limits
2. Simplifying planning and control through visible signs
3. Providing a standard container to every employee to store tools and documents
4. Improving the flow of value to the customers

Options :

89951451607. 1

89951451608. 2

89951451609. 3

89951451610. 4

Question Number : 21 Question Id : 89951413259 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Improvements in production should be:

1. Data driven and Employee Centered
2. Driven by Marketing Requests
3. (a) and (b)
4. None of the above

Options :

89951451611. 1

89951451612. 2

89951451613. 3

89951451614. 4

Question Number : 22 Question Id : 89951413260 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following is not an example of a non-value added activity?

1. Keeping inventory
2. Ordering raw material
3. Quality Control
4. None of the above

Options :

- 89951451615. 1
- 89951451616. 2
- 89951451617. 3
- 89951451618. 4

Question Number : 23 Question Id : 89951413261 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following contributes to the productivity paradox?

1. Change in customer's choice
2. Not paying attention to supply chain
3. Value migration
4. All the above

Options :

- 89951451619. 1
- 89951451620. 2
- 89951451621. 3
- 89951451622. 4

Question Number : 24 Question Id : 89951413262 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Company XYZ undertakes several improvement activities in a piecemeal fashion. What could it lead to?

1. A simplified value stream mapping
2. Productivity paradox
3. Both a & b
4. None of these

Options :

89951451623. 1

89951451624. 2

89951451625. 3

89951451626. 4

Question Number : 25 Question Id : 89951413263 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

In six sigma methodology, the variables on which the data should be collected is defined in which stage?

1. Define
2. Measure
3. Analyse
4. Implement

Options :

89951451627. 1

89951451628. 2

89951451629. 3

89951451630. 4

Question Number : 26 Question Id : 89951413264 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Who among the following is responsible for day-to-day activities of a process in an organisation which strives for six sigma quality levels?

1. Process owner
2. Team leader
3. Six sigma coach
4. Six sigma sponsors

Options :

- 89951451631. 1
- 89951451632. 2
- 89951451633. 3
- 89951451634. 4

Question Number : 27 Question Id : 89951413265 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Control charts are used to

1. Identify the improvement opportunities
2. Highlight the problem
3. Finding the root cause of problem
4. None of the above

Options :

- 89951451635. 1
- 89951451636. 2
- 89951451637. 3
- 89951451638. 4

Question Number : 28 Question Id : 89951413266 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Pareto Diagram can be used to

1. Identify the improvement opportunities
2. Highlight the problem
3. Finding the root cause of problem
4. None of the above

Options :

89951451639. 1

89951451640. 2

89951451641. 3

89951451642. 4

Question Number : 29 Question Id : 89951413267 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

A call centre is analysing the customer satisfaction scores. A customer is satisfied if the call gets answered within 4 rings. Which of the following charts can be used for this situation?

1. p chart
2. X bar
3. R chart
4. c chart

Options :

89951451643. 1

89951451644. 2

89951451645. 3

89951451646. 4

Question Number : 30 Question Id : 89951413268 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following relate to a gap resulting in a service quality problem?

1. Management is unable to invest in appropriate technology required for service delivery
2. Service firms write an ambitious brochure about their service offerings
3. The worker morale is low in the organization
4. All of the above

Options :

89951451647. 1

89951451648. 2

89951451649. 3

89951451650. 4

Question Number : 31 Question Id : 89951413269 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Which is a viable strategy to manage an intermittent flow system better?

1. Develop a planning methodology without estimating the available capacity
2. Cut down the variety of offerings thereby gaining better control on operations
3. Redesign the operating system by creating sub-systems
4. Increase the volume of all offerings

Options :

89951451651. 1

89951451652. 2

89951451653. 3

89951451654. 4

Question Number : 32 Question Id : 89951413270 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

What is the outcome when a bottleneck resource is augmented with more capacity?

1. Throughput time increases
2. Cycle time decreases
3. The resource with the second most utilization becomes the bottleneck
4. Both 2 and 3

Options :

89951451655. 1

89951451656. 2

89951451657. 3

89951451658. 4

Question Number : 33 Question Id : 89951413271 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

What is the effect of delayed differentiation strategy?

1. The number of variants offered will be reduced
2. The inventory carrying costs will come down
3. Production Planning and Control will become more difficult
4. Bullwhip effect will be more pronounced

Options :

89951451659. 1

89951451660. 2

89951451661. 3

89951451662. 4

Question Number : 34 Question Id : 89951413272 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Which of these will be addressed if we pursue a value stream mapping?

1. The problems faced by the supplier in manufacturing the component that he supplies to the organization
2. The lack of motivation faced by the employees in the organization
3. The choice of an appropriate person as the CEO of the company
4. Stepping up of the value engineering exercises in the organization

Options :

89951451663. 1

89951451664. 2

89951451665. 3

89951451666. 4

Question Number : 35 Question Id : 89951413273 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

From a perspective of Statistical Process Control (SPC), a six-sigma process will have which of the following attributes?

1. The USL and LSL will be separated by a distance of six sigma
2. The process center will be aligned with the LSL
3. The number of defects produced by the process will be 0.0018 parts per million
4. All of the above

Options :

89951451667. 1

89951451668. 2

89951451669. 3

89951451670. 4

Question Number : 36 Question Id : 89951413274 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following paradoxes do **not** fall under the purview of operations management?

1. The storage facility is full of raw material, but the production stopped due to lack of components
2. There warehouse is full of finished goods, but there are backlogs of orders from customers
3. The price of product is lower than the competitor's product, but the sales are not reaching the target.
4. All the above

Options :

89951451671. 1

89951451672. 2

89951451673. 3

89951451674. 4

Question Number : 37 Question Id : 89951413275 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

In order to analyse the capacity of a sugar mill, which of the following is a necessary information?

1. The number of support staff per shift
- 2 The number of employees in management
- 3 The amount of sugar cane that can be crushed per hour by the crushing machine(s)
- 4 All the above

Options :

89951451675. 1

89951451676. 2

89951451677. 3

89951451678. 4

Question Number : 38 Question Id : 89951413276 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

In order to analyse the capacity of a hospital, which of the following is a necessary information?

- 1 The number of doctors available in each shift
- 2 The number of nurses available in each shift
- 3 The number of beds in the hospital
- 4 All of the above

Options :

- 89951451679. 1
- 89951451680. 2
- 89951451681. 3
- 89951451682. 4

Question Number : 39 Question Id : 89951413277 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following is a reason for bullwhip effect?

1. Variation in demand
2. Variation in supply
3. Both
4. None

Options :

- 89951451683. 1
- 89951451684. 2
- 89951451685. 3
- 89951451686. 4

Question Number : 40 Question Id : 89951413278 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

A logistics company is analysing the number of accidents its' fleet is involved in. Which of the following charts could be used in this process?

1. p chart
2. X bar chart
3. c chart
4. R chart

Options :

- 89951451687. 1
- 89951451688. 2
- 89951451689. 3
- 89951451690. 4

Question Number : 41 Question Id : 89951413279 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Doubling the bottleneck capacity will result in doubling the output of a manufacturing system.

1. Always True
2. Always False
3. Cannot be determined as it depends on the initial capacity of the bottleneck and the initial output of the manufacturing system
4. Depends on the processes time of other processes in the manufacturing system

Options :

- 89951451691. 1
- 89951451692. 2
- 89951451693. 3
- 89951451694. 4

Question Number : 42 Question Id : 89951413280 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Fishbone diagram can be used to

1. Identify the improvement opportunities
2. Highlight the problem
3. Finding the root cause of problem
4. None of the above

Options :

89951451695. 1

89951451696. 2

89951451697. 3

89951451698. 4

Question Number : 43 Question Id : 89951413281 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Poka-Yoke is a technique to

- 1 Identify improvement opportunity to a problem
- 2 Process of finding the root cause of a problem
- 3 Highlight problem
- 4 Build quality into product by eliminating the source of problem

Options :

89951451699. 1

89951451700. 2

89951451701. 3

89951451702. 4

Question Number : 44 Question Id : 89951413282 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

A printing press is analysing its efficiency. It treats a job to be good, if there is no spelling mistake, font mismatch, colour mismatch or wrong spacing. Which of the following charts can be used for this situation?

1. p chart
2. X bar and R chart
3. c chart
4. All the above

Options :

- 89951451703. 1
- 89951451704. 2
- 89951451705. 3
- 89951451706. 4

Question Number : 45 Question Id : 89951413283 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The differentiating factor(s) of services industry from product industry is/are

- 1 Services cannot be inventoried
- 2 Service quality happens only after the service is delivered, therefore unlike products, it cannot be planned for in advance
- 3 Service Workers are less skilled than Production Workers
- 4 (a) and (b)

Options :

- 89951451707. 1
- 89951451708. 2
- 89951451709. 3
- 89951451710. 4

Question Number : 46 Question Id : 89951413284 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Which of the following statements are true with respect to service quality?

1. Management is generally not aware of the customer requirements
2. Quality of service is based on the outcome and the process of service delivery
3. Service recovery is the way to improve service quality
4. All of the above

Options :

89951451711. 1

89951451712. 2

89951451713. 3

89951451714. 4

Question Number : 47 Question Id : 89951413285 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

If the process speed to sales rate is more than one, then which of the following statements are true?

1. The sales team of the company is performing well
2. There will be an eventual pile up of finished goods inventory
3. There will be shortage of finished goods inventory
4. None of the above

Options :

89951451715. 1

89951451716. 2

89951451717. 3

89951451718. 4

Question Number : 48 Question Id : 89951413286 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Which of the following does not denote the flow of value in a value stream?

1. From concept to launch
2. From order to delivery
3. From raw material to finished good
4. From retailer to manufacturer

Options :

89951451719. 1

89951451720. 2

89951451721. 3

89951451722. 4

Question Number : 49 Question Id : 89951413287 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

In a case where a firm reduces the set up time, the lot size is expected to

1. Reduce
2. Increase
3. Remain unaffected
4. Increase and then decrease

Options :

89951451723. 1

89951451724. 2

89951451725. 3

89951451726. 4

Question Number : 50 Question Id : 89951413288 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Upgrading a machine that is a bottleneck is an example of:

1. Value added analysis
2. Continuous improvement
3. Both a & b
4. None of the above

Options :

89951451727. 1

89951451728. 2

89951451729. 3

89951451730. 4

Question Number : 51 Question Id : 89951413289 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Forwarding a Purchase Order to a warehouse is a

- 1 Value adding activity
- 2 Necessary but non value adding
- 3 Non value adding activity
- 4 None of these

Options :

89951451731. 1

89951451732. 2

89951451733. 3

89951451734. 4

Question Number : 52 Question Id : 89951413290 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

A TQM program will result in the following:

1. Increase in Productivity Paradox
2. Process centered approach
3. Increase in employee costs
4. Focus on Marketing of products and services

Options :

89951451735. 1

89951451736. 2

89951451737. 3

89951451738. 4

Question Number : 53 Question Id : 89951413291 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following is not true in a JIT environment?

- 1 Processing in batches of WIP
- 2 Activity of each work station is authorised by the demand of downstream work stations
- 3 Maintaining a constant flow of parts
- 4 Moving the parts through production system based on end unit demand

Options :

89951451739. 1

89951451740. 2

89951451741. 3

89951451742. 4

Question Number : 54 Question Id : 89951413292 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

If a firm reduces the amount of safety stock it carries to three quarters of the current level, then

- 1 Ordering cost will increase as the number of orders has increased
- 2 Carrying cost will decrease as the quantity held has reduced
- 3 Carrying cost will increase as the quantity per order has increased
- 4 Ordering cost will decrease as the quantity ordered has decreased

Options :

89951451743. 1
89951451744. 2
89951451745. 3
89951451746. 4

Question Number : 55 Question Id : 89951413293 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

If the standard deviation in demand doubles, to maintain same service level, the safety stock should

- 1 Halve
- 2 Increase by 1.4
- 3 Double
- 4 Cannot be determined

Options :

89951451747. 1
89951451748. 2
89951451749. 3
89951451750. 4

Sub-Section Number :

2

Sub-Section Id :

899514262

Question Shuffling Allowed :

Yes

Question Id : 89951413294 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No

Question Numbers : (56 to 60)

Question Label : Comprehension

A five-star hotel monitors its guest check in process using principles of Statistical Process Control (SPC). Based on the prevailing conditions in the market, customer preferences and its own understanding of the situation, the management felt that it is a very important metric for them.

Based on a market survey, they found that the expectations are that customers would be happy if the guest check-in time is 100 ± 20 seconds. The hotel has been monitoring the process as follows:

As every guest arrives at the check-in desk, the elapsed time to complete the process is measured and recorded in a file.

Periodically, a sample of 100 such recordings are taken and those that exceeded 2 minutes were considered as defects.

This is used to set up a control chart.

A sample measurement is reproduced below:

Number of defects for the sample numbers 1 to 10 respectively are [13, 12, 10, 18, 16, 12, 20, 14, 09, 12].

Meanwhile, a consultant who studied the process concluded that they were using an inappropriate control chart. The consultant recommended that since the detailed measurements of actual check-in time were being recorded it should be used to setup a control chart.

The hotel management was in alignment with the consultant's thinking and changed the type of control chart to X-bar chart. The process was monitored using it and found to be statistically stable. The mean of the guest check-in process was found to be 105 seconds and the standard deviation 8.

Sub questions

Question Number : 56 Question Id : 89951413295 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 3 Wrong Marks : 0

Which of the following statements best describe the old process of measuring defects (prior to the change suggested by the consultant)?

1. The process was under statistical control
2. The process will on an average produce defects less than 10%
3. The control chart used was variable based control chart
4. The mean of the process was less than the standard deviation of the process

Options :

- 89951451751. 1
- 89951451752. 2
- 89951451753. 3
- 89951451754. 4

Question Number : 57 Question Id : 89951413296 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 3 Wrong Marks : 0

Which of the following statement is true with respect to the old control chart?

1. A plot of the data in the control chart shows that there are no points in zone C
2. It may not be required to stop the process and check for any deterioration
3. The process is drifting towards zone A
4. There is at least one point in zone A or beyond

Options :

- 89951451755. 1
- 89951451756. 2
- 89951451757. 3
- 89951451758. 4

Question Number : 58 Question Id : 89951413297 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 3 Wrong Marks : 0

How will you describe the transition that the hotel has made with respect to the use of control chart for the guest check-in process?

1. It was a transition from the use of an attribute based control chart to a variable based control chart
2. The transition will reduce the quantum of information obtained through data collection
3. The transition will take away the opportunity to identify and correct defects in the guest check-in process
4. None of the above

Options :

89951451759. 1

89951451760. 2

89951451761. 3

89951451762. 4

Question Number : 59 Question Id : 89951413298 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 3 Wrong Marks : 0

Which of the following statement is true with respect to the potential capability (C_p) of the process using the revised control chart?

1. The potential capability (C_p) cannot be estimated with the available data
2. The potential capability (C_p) is less than one
3. The potential capability (C_p) is more than one
4. The potential capability (C_p) is zero

Options :

89951451763. 1

89951451764. 2

89951451765. 3

Question Number : 60 Question Id : 89951413299 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 3 Wrong Marks : 0

Consider the revised methodology for monitoring the process. Which of the following describe the situation?

1. Potential capability (C_p) will be more than the Actual capability (C_{pk}) for this process
2. With the available information it will not be possible to predict the number of defects the process is likely to produce
3. With some marginal efforts it should be possible to reach six-sigma level
4. The spread of the process is 24

Options :

- 89951451767. 1
- 89951451768. 2
- 89951451769. 3
- 89951451770. 4

Sub-Section Number :	3
Sub-Section Id :	899514263
Question Shuffling Allowed :	Yes

Question Id : 89951413300 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No

Question Numbers : (61 to 65)

Question Label : Comprehension

A large hospital buys a specialized, single use medical grade plastic container for its use in the Operation Theaters.

The plastic containers are available from a few suppliers and one unit of the box costs Rs. 2,000. The surgical sections (including the operating theaters) in the hospital work for 250 days a year and the daily consumption rate is four boxes. The suppliers take 7 working days to replenish an order. The ordering cost is Rs. 2,000 per order and the carrying cost is 20 percent.

The hospital has been utilizing an Economic Order Quantity (EOQ) model for inventory planning with respect to these boxes.

The supplier has of late introduced a Minimum Order Quantity (MOQ) restriction for all its buyers based on some internal exercise. The MOQ is 150 boxes.

In the meantime, the hospital plans to launch some improvement initiatives. This will bring down the ordering cost by 20 percent. The hospital may need to spend a sum of Rs. 10,000 towards these initiatives. A new supplier is willing to supply the plastic containers without any MOQ restrictions.

Sub questions

Question Number : 61 Question Id : 89951413301 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 3 Wrong Marks : 0

The amount of pipeline inventory that the hospital will carry will be

1. 75 boxes
2. 100 boxes
3. 28 boxes
4. None

Options :

- 89951451771. 1
- 89951451772. 2
- 89951451773. 3
- 89951451774. 4

Question Number : 62 Question Id : 89951413302 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 3 Wrong Marks : 0

Which of the statements will be true if the hospital uses an EOQ model for ordering the boxes?

- 1. If the hospital places an order it will last for 25 days
- 2. The maximum inventory of boxes in the hospital will be 50 boxes
- 3. The total cost of ordering will be more than the total cost of carrying inventory
- 4. All of the above

Options :

- 89951451775. 1
- 89951451776. 2
- 89951451777. 3
- 89951451778. 4

Question Number : 63 Question Id : 89951413303 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 3 Wrong Marks : 0

What will be the impact of the MOQ restriction imposed by the supplier?

- 1. The total ordering cost for the hospital will increase
- 2. The total cost (of ordering + carrying) for the hospital will decrease
- 3. The total carrying cost for the hospital will increase
- 4. The Hospital will not be affected in anyway

Options :

- 89951451779. 1

89951451780. 2

89951451781. 3

89951451782. 4

Question Number : 64 Question Id : 89951413304 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 3 Wrong Marks : 0

If the hospital goes ahead with the improvement efforts, which of the following statements will be true with respect to the pay back of the investment?

- 1 4.74 years
- 2 2.37 years
- 3 Less than 1 year
- 4 3.27 years

Options :

89951451783. 1

89951451784. 2

89951451785. 3

89951451786. 4

Question Number : 65 Question Id : 89951413305 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 3 Wrong Marks : 0

If the hospital spends on the improvement and chooses to work with the new supplier, what will be the impact?

1. The overall cost of the inventory plan will increase and will make this new offer unattractive
2. The total cost of ordering will increase in the new plan (compared to the old scenario)
3. The total cost of carrying will decrease while the total cost of ordering will remain unchanged (compared to the old scenario)
4. Both the total cost of ordering and total cost of carrying inventory will come down making it an attractive plan

Options :

89951451787. 1

89951451788. 2

89951451789. 3

89951451790. 4

Sub-Section Number :

4

Sub-Section Id :

899514264

Question Shuffling Allowed :

Yes

Question Id : 89951413306 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No

Question Numbers : (66 to 70)

Question Label : Comprehension

CSC-Car service centre, offers different services for four wheeler maintenance.

Cars enter the service centre at a rate of one every 1.25 min. Since they know the daily capacity the centre can handle, they accept cars only up to its capacity using a numbered token system. Once the car is accepted for service, it is attended by an Analyst. The Analyst takes a test ride and assess the problems and arrives at the operations required, this process is called Check-In. This takes an average 10 min for each vehicle. Cars arrive at the centre from 7 AM to 11 AM. There are 8 Analysts employed by the service centre.

Each car that arrives at the service centre requires different procedures. There are three machine sections available in the service sections: Engine, Wheel, and Gear box cum transmission. Cars are sent to service sections as per the requirement (as advised by Analyst) in no particular order, i.e., there is no dependency across sections and any vehicle can go to any section as per availability in the section.

Let us assume that the processing time at each of the sections is constant.

The car enters different service sections as recommended by the analyst. The processing time at Engine section is 10 minutes and there is a capacity to process 5 vehicles simultaneously. The processing time for wheel service section is 20 minutes and 6 vehicles can be worked upon simultaneously. The Gear box cum transmission section can process 5 vehicles simultaneously and the time for processing is 12 minutes. All the service sections operate from 9 AM to 5 PM.

Once all the procedures are completed, again the same (those who did check-in) Analysts take the vehicle for a test ride and check for proper service of all the parts, this is called check-out. This takes 15 minutes per vehicle. The Analyst takes the vehicle for post service checks from 2 PM to 7 PM.

The time required for initial formalities of receiving the car in the morning and actual delivery of the car back to the customer are assumed to be part of the marketing section and not of concern for the service centre from a capacity perspective.

Sub questions

Question Number : 66 Question Id : 89951413307 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 3 Wrong Marks : 0

What is the daily capacity of the Check-out station?

1. 192
2. 240
3. 150
4. 160

Options :

89951451791. 1
89951451792. 2
89951451793. 3
89951451794. 4

Question Number : 67 Question Id : 89951413308 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 3 Wrong Marks : 0

What is the daily capacity of Engine section?

1. 192
2. 240
3. 144
4. 200

Options :

89951451795. 1
89951451796. 2
89951451797. 3
89951451798. 4

Question Number : 68 Question Id : 89951413309 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 3 Wrong Marks : 0

What is the bottleneck for this service centre?

1. Analysts- Check-in
2. Wheel Centre
3. Analysts- Check-out
4. Gear box

Options :

- 89951451799. 1
- 89951451800. 2
- 89951451801. 3
- 89951451802. 4

Question Number : 69 Question Id : 89951413310 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 3 Wrong Marks : 0

What is the bottleneck in the service centre, if 30% of the cars coming in are not in need of wheel servicing?

1. Analysts- Check-in
2. Wheel Centre
3. Analysts- Check-out
4. Gear box

Options :

- 89951451803. 1
- 89951451804. 2
- 89951451805. 3
- 89951451806. 4

Question Number : 70 Question Id : 89951413311 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 3 Wrong Marks : 0

The capacity of Wheel Centre is increased to handle 7 cars at the same time. There is a proposal to the service centre exploring the option of sharing the Engine centre capacity with another firm. What percentage of capacity can the service centre share?

1. 20%
2. 28%
3. 33.33%
4. 40%

Options :

89951451807. 1

89951451808. 2

89951451809. 3

89951451810. 4