

Exam

Name _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

1) As a strategy, subcontracting means always producing at the level of _____ demand and meeting any additional demand through subcontracting. 1) _____

- A) maximum
- B) level
- C) minimum
- D) all of the above

Answer: C

- Explanation:
- A)
 - B)
 - C)
 - D)

2) The first level in the manufacturing planning and control (MPC) system is: 2) _____

- A) material requirement plan
- B) production plan
- C) strategic business plan
- D) master production schedule

Answer: C

- Explanation:
- A)
 - B)
 - C)
 - D)

3) _____ is responsible for research, development, and design of new products or modifications to existing ones. 3) _____

- A) Production
- B) Marketing
- C) Finance
- D) Engineering

Answer: D

- Explanation:
- A)
 - B)
 - C)
 - D)

4) Firms make to stock when 4) _____

- A) product has a long shelf life
- B) demand is fairly constant and predictable
- C) there are few product options
- D) all of the above

Answer: D

- Explanation:
- A)
 - B)
 - C)
 - D)

5) _____ is a process for continually revising the strategic business plan and coordinating plans of the various departments. 5) _____

- A) SOP
- B) MRPII
- C) JIT
- D) MRP

Answer: A

- Explanation:
- A)
 - B)
 - C)
 - D)

6) Given the objectives set by the strategic business plan, production management is concerned with: 6) _____
A) quantities of each product group that must be produced in each period
B) the resources of equipment, labor, and material needed in each period
C) the desired inventory levels
D) all of the above

Answer: D

Explanation: A)
B)
C)
D)

7) In a _____ environment, manufacturers wait until an order is received from a customer before 7) _____
starting to manufacture the goods.
A) make-to-stock B) make-to-order
C) assembly-to-order D) engineer-to-order

Answer: B

Explanation: A)
B)
C)
D)

8) _____ is the ability to produce goods and services. It means having the resources available to 8) _____
satisfy demand.
A) MRPII B) Production leveling
C) Capacity D) Subcontracting

Answer: C

Explanation: A)
B)
C)
D)

9) Production leveling is continually producing an amount: 9) _____
A) greater than average demand B) equal to the average demand
C) less than average demand D) none of the above

Answer: B

Explanation: A)
B)
C)
D)

10) _____ is responsible for deciding the sources and uses of funds available to the firm, cash flows, 10) _____
profits, return on investment, and budgets.
A) Engineering B) Finance C) Production D) Marketing

Answer: B

Explanation: A)
B)
C)
D)

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

- 11) A company wants to produce 10,000 units of an item over the next three months at a level rate. The first month has 20 working days; the second 20 working days; and the third 10 working days because of an annual shutdown. On average, how much should the company produce each day to level production? 11) _____

Answer: Total production = 100,000 units
 Total working days = 20 + 20 + 10 = 50 working days
 Average daily production = 100,000/50 = 200 units per day

Explanation:

- 12) What are the advantages of the chase strategy? 12) _____

Answer: The advantage to the chase strategy is that inventories can be kept to a minimum. Goods are made when demand occurs and are not stockpiled. Thus, the costs associated with carrying inventories are avoided.

Explanation:

- 13) A company wants to develop a level production plan for a family of products. The opening inventory is 100 units, and an increase to 160 units is expected by the end of the plan. The demand for each period is given. How much should the company produce each period? What will be the ending inventories in each period. Assume all periods have the same number of working days. 13) _____

Period	1	2	3	4	5	6	Total
Forecast Demand	100	120	130	140	120	110	
Planned Production							
Planned Inventory	100						

Answer:

Period	1	2	3	4	5	6	Total
Forecast Demand	100	120	130	140	120	110	720
Planned Production	130	130	130	130	130	130	780
Planned Inventory	100	130	140	140	130	140	160

Total production = 110 + 120 + 130 + 140 + 120 + 110 = 720 + 60 increase in inventory over plan = 780

Period production = 780 divided by 6 = 130 units

The ending inventory for period 1 is 130, for period 5 is 140 (see above). Take opening inventory of 100 plus planned production of 130 less the forecast demand of 100 to get the ending planned inventory of 130 in period 1 and so on.

Explanation:

- 14) Under what conditions do firms make-to-order? 14) _____

Answer: Generally, firms make to order when goods are produced to customer specifications, the customer is willing to wait while the order is being made, the product is expensive to make and to store, and several product options are offered.

Explanation:

- 15) What questions must be answered in resource requirements planning? 15) _____
 Answer: Once the preliminary production plan is established, it must be compared to the existing resources of the company. Two questions must be answered. 1. Are the resources available to meet the production plan? 2. If not, how will the differences be reconciled?
 Explanation:
- 16) A company wants to produce 500 units over the next e months at a level rate. The months have 20, 21, and 19 working days, respectively. On average, how much should the company produce each day to level production? 16) _____
 Answer: 8.3 units per day
 Explanation:
- 17) What information is needed to make a production plan? 17) _____
 Answer: The information needed to make a production plan includes: forecast by period for the planning horizon, opening inventory, desired ending inventory, and any past-due customer orders. These are orders that are late for delivery and are sometimes called back orders.
 Explanation:
- 18) Discuss the general procedure for developing a level production plan. 18) _____
 Answer: The general procedure for developing a level production plan is: (1) total the forecast demand for the planning horizon, (2) determine the opening backlog and the desired ending backlog, (3) calculate the total production (which is the total forecast plus the opening backlog minus the ending backlog), (4) calculate the production required each period by dividing the total production by the number of periods, and (5) spread the existing backlog over the planning horizon according to due date per period.
 Explanation:
- 19) A company plans to produce 20,000 units in a 3 month period. The months have 20, 21, and 22 days respectively. How much will be produced in each of the three months? 19) _____
 Answer: Month 1= 174; Month 2 =166; Month 3 =158.
 Explanation:
- 20) If opening inventory is 400 units, demand is 900 units, and production is 800 units, what will be the ending inventory? 20) _____
 Answer: $(400 + 800) - 900 = 300$ units
 Explanation:

TRUE/FALSE. Write 'T' if the statement is true and 'F' if the statement is false.

- 21) Along with the market and financial plans, the production plan is concerned with implementing the strategic business plan. The planning horizon is usually eighteen to sixty months and is typically reviewed each year. 21) _____
 Answer: True False
 Explanation:

- 22) The strategic business plan integrated the plans of all departments in an organization and is normally updated monthly. 22) _____
Answer: True False
Explanation:
- 23) The disadvantage of a production leveling strategy is that it results in smooth level of operations that avoids the costs of changing production levels. 23) _____
Answer: True False
Explanation:
- 24) Sales and operations planning is medium range and includes the marketing, production, engineering, and finance plans. 24) _____
Answer: True False
Explanation:
- 25) MRP II provides coordination between marketing and production. 25) _____
Answer: True False
Explanation:
- 26) The objective in developing a production plan is to maximize the costs of carrying inventory, changing production level, and stocking out (not supplying the customer what is wanted when it is wanted). 26) _____
Answer: True False
Explanation:
- 27) The larger scope of ERP systems allows the tracking of orders and other important planning and control information throughout the entire company from procurement to ultimate customer delivery. 27) _____
Answer: True False
Explanation:
- 28) The production plan sets the general levels of production and inventories over the planning horizon. 28) _____
Answer: True False
Explanation:
- 29) As a firm moves from strategic planning to production activity control, the purpose changes from general direction to specific detailed planning, the time span decreases from years to days, and the level of detail increase from general categories to individual components and workstations. 29) _____
Answer: True False
Explanation:
- 30) The process of determining the resources required and comparing them to the available resources takes place at each of the planning levels and is the problem of capacity management. 30) _____
Answer: True False
Explanation:

Answer Key
Testname: C2

- 1) C
- 2) C
- 3) D
- 4) D
- 5) A
- 6) D
- 7) B
- 8) C
- 9) B
- 10) B

11) Total production = 100,000 units

Total working days = 20 + 20 + 10 = 50 working days

Average daily production = 100,000/50 = 200 units per day

12) The advantage to the chase strategy is that inventories can be kept to a minimum. Goods are made when demand occurs and are not stockpiled. Thus, the costs associated with carrying inventories are avoided.

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- 15) Once the preliminary production plan is established, it must be compared to the existing resources of the company. Two questions must be answered. 1. Are the resources available to meet the production plan? 2. If not, how will the differences be reconciled?
- 16) 8.3 units per day
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- 18) The general procedure for developing a level production plan is: (1) total the forecast demand for the planning horizon, (2) determine the opening backlog and the desired ending backlog, (3) calculate the total production (which is the total forecast plus the opening backlog minus the ending backlog), (4) calculate the production required each period by dividing the total production by the number of periods, and (5) spread the existing backlog over the planning horizon according to due date per period.
- 19) Month 1 = 174; Month 2 = 166; Month 3 = 158.
- 20) $(400 + 800) - 900 = 300$ units
- 21) FALSE
- 22) FALSE
- 23) FALSE
- 24) TRUE
- 25) TRUE
- 26) FALSE
- 27) TRUE
- 28) TRUE

Answer Key
Testname: C2

- 29) TRUE
- 30) TRUE