Fundamentals of supply chain:

1. What is purchase order?

Document from buyer to seller

1. What are the demand patterns?
   1. Random
   2. Stable
   3. Dependent
   4. seasonal
2. Extrinsic technique is based on correlation and causality? True or false

True

1. Supply chain involves

**Information, material**, people, none

1. What inventory reduction do you need to have the same cash to cash cycle time as last year?
   1. No reduction
   2. 512.5 million
   3. $37.5 million
   4. $7.5 million
2. Which of the following is not a RF device type used in warehouse?
   1. Trunk-mount
   2. no-mount
   3. hands free
   4. hand held
3. List the major criteria to be considered during packing?
   1. Packing location
   2. space utilization during packing
   3. materials to be used for packing
   4. **Packaging policy defined by firm**
4. Which of the following is a type of PO send from manufacturer to the WH?
   1. **Advanced purchase order**
   2. advanced ship notice
   3. advanced purchase notice
   4. advanced order processing
5. Establishing a regional WH for a retailer NW can be
6. Less beneficial if the number of stores is small
7. More beneficial if the distance between the supplier and the market is long
8. Costly because of additional facility and additional handling costs
9. Reduce the total inventory required due to risk pooling
10. Less beneficial if the demand of stores are positively correlated
11. All of the options
12. Stable demand retains a general shape over a time and dynamic demand tends to be erratic. a. **True** or false
13. What are the purchasing objectives?
    1. Effective and efficient management of the purchasing process
    2. Standardize materials wherever possible
    3. Develop strong relationship within the firm
    4. Keep inventories at a min
    5. **All**
14. The inventory turns ratio measures
    1. The amount of space needed to store inventory
    2. Obsolete inventory as a percent of sales.
    3. **How efficiently inventory is being used.**
    4. The amount of inventory needed to support sales growth
15. If sales of a company are 4700 million and net income is 950 million, total assets 4000 million, what is ROI in %?
    1. 23.75 (Profit/ total asset) if more than one asset take average of it)
    2. 20.2
    3. 44
    4. 30
16. Given that the previous forecast of 65 turned out to be four units less than the actual demand. The next forecast is 66. What would be the value of alpha if the simple exponential smoothing forecast is being used?

Alpha\*Actual + Forecast (1-Alpha) = Next forcast

Alpha \* 69 + 65(1-alpha) = 66

Alpha = 0.25

* 1. 0.04
  2. 0.02
  3. 0.4
  4. 0.25

1. Based on the following actual and forecast demand the total forecast error is

Period actual forecast (actual –forecast)

1 90 100 (-10)

2 140 120 (20)

3 120 140 (-20)

4 110 130 (-20)

-50 +20 = -30

1. 60
2. -30
3. 50
4. 30
5. A company produces finished product which uses nuts, bolts and fasteners in assembly process. The best way to plan for this would be
   1. **To assign pseudo bill as a kit for all the nuts, bolts and fasteners.**
   2. To assign separate nuts and bolts to the end item bill of material
   3. To master schedule the parts
   4. None of the above
6. Select correct purchasing strategies from below?
   1. Leverage competition among suppliers
   2. Change the nature of demand
   3. **Seek joint advantage with suppliers**
   4. Manage spend
7. The movement of carton from general storage location to the picking location for full filling a customer order is called?
   1. Replenishment
   2. Checking
   3. Storage
   4. Shipping
   5. Put away
8. What are the key objectives in verifying after receiving in the purchasing process?
   1. Ensure proper physical condition, quantity, documentation
   2. Confirm receipt of goods
   3. Quality parameters met
   4. **All the above**
9. Process of picking the selected items in the quantity requested and utilizing them on the pallet, station or in the containers
   1. Pallet building
   2. Value added service
   3. Packing
   4. **Order picking**
10. Hegde inventory defines as an inventory created to protect against a possible future event or disruption in supply, such as a strike, major vendor shut down, prospective trade or government program change, or similar situation.

Say **True** or False

1. A work center has 4 machines operating 6 days for 8 hours per day. What is the available time
   1. 32 hrs
   2. **192 hrs**
   3. 24 hrs
   4. 48 hrs
2. Which of the following is included in the outbound process of WMS? (one or more)
   1. Storage
   2. Replenishment
   3. **Shipping**
   4. Pick pool planning
   5. Receiving
3. Capacity related cost includes
   1. Set up and tear down cost
   2. None
   3. Production control costs
   4. Capital cost
   5. Purchasing cost
4. The total sales of the company X for the yr 2013 is pegged at $1.8 billion. The company has total assets worth $1 billion with an equity of $500 million. The ROE for company Xis 6%. Find the net profit made by company X in year 2014 given that its total liabilities stood at $500 million and the tax rate is 35%.
   1. $ 300 million
   2. $195 million
   3. None
   4. $30 million
5. Which of the following is included in the inbound process of WMS? (one or more)
   1. **Receiving**
   2. **Storage**
   3. Shipping
   4. Value-added service
   5. **Replenishment**
6. What are the types of supplier relation?
   1. Transactional
   2. Strategic alliance
   3. Partnership
   4. **All**
7. What is the sequence followed while creating a dock schedule?
   1. Dock scheduling varies based on the shipment and the carrier
   2. **Dock scheduling at sources is done first and dock scheduling at destination**
   3. Same time in source and destination
   4. Destination first and then source
8. A work center has 4 machines available for 8 hrs. for 5 days per week. During the week, they produced for 128 hours. The utilization is
   1. 75%
   2. **80%**
   3. 70%
   4. 85%
9. Every time a customer makes a purchase at a store, data is transmitted to the buyers and the distribution center so the merchandise can be replenished and sent on the next truck delivery.

Which strategy does this store utilize?

* 1. Pull supply chain
  2. Push supply chain
  3. Influential logistic strategy
  4. Cross check logistic strategy

1. Which of these combinations yields the highest net profit before tax?
   1. Gross sales of $45,000 with a 50% cost of sales and an operating expense of 20%
   2. $40000,45%, 22.5%
   3. $50,5000, 55%, 20%
   4. $55,000, 55% and 22.5%
2. Strategic source is not an institutional procurement process that continuously improves and re-evaluates the purchasing activities of a company. TRUE or FALSE
3. A firm seeking a means for reducing manufacturing costs is considering two projects.

Project A will increase fixed cost by $2000 while reducing variable costs by $0.33 per unit. Project B will have no impact on fixed cost but will increase the variable cost per unit by $5. At what projected volume level does project A become more profitable?

* 1. 300
  2. **425**
  3. 500
  4. 400

1. Which of the following plan levels are supported by forecasting?
   1. Business planning
   2. Master scheduling
   3. All
   4. Sales and operations planning
2. Job ABC will take 100 standard hours to produce. Using the following information, how many equivalent days will it take to complete the job? Machines =2; number of operations =2; shifts per day=1 machine utilization =90% operator efficiency = 90%
   1. 9
   2. 7
   3. 8
   4. 6
3. Which of the following explains the term replenishment in supply chain management?
   1. Process of picking the selected items from a location as per specified quantity
   2. The process of loading packages into a container
   3. The process where picked and checked orders are packed for shipment
   4. **Movement from storage location to the picking location for fulfilling a customer need**
4. What is the term used to denote additional cost incurred due to special circumstances?
   1. Accessorial
   2. Base rate
   3. **Demurrages**
   4. Fuel charge
5. Which of the major challenges during putaway?
   1. Optimize the storage space
   2. Optimal location identification for storage
   3. Maintain sequencing for loading
   4. Inventory identification
6. Quantitative techniques is used for business planning and forecasting for new products.
   1. TRUE or **FALSE**
7. A powered industrial truck used to lift and transport materials
   1. Pallet
   2. Docks
   3. Forklift
   4. Truck
8. Big apple appliances sells trendy electronic appliances in two different markets: New York and Chicago. Both the new York and Chicago markets have weekly demands that normally distributed with means 200 and standard deviations 60. The demands in the two markets are positively correlated. Which of the following observations is definitely false.
   1. Week 1 and week 2 demands in the New York market were 200 and 400 units. The demand in Chicago market over the same time period were 400 and 100 units correspondingly.
   2. Over the past 10 weeks, total demand in new York was 1500 units higher than the demand in the Chicago market
   3. The retailer sold more units in Chicago than in new York over the past several weeks
   4. The coefficient of variation of the total demand from both the markets is 0.15
   5. Average demand over the past 10 weeks in the two markets differs by 50 units
9. What is the term used to describe logistics service providers?
   1. 4PL
   2. 2Pl
   3. 1PL
   4. 3PL
10. William Gus pagons is an executive vice president at sears and overseas the systems the retailer depends on to make 5000 home deliveries per day and moves 250,000 truckloads of goods every year. With 30 large distribution centers and 9 smaller outlets, it’s pagons job to supply 100,000 plus products to more than 2000 sears stores. When asked to describe the retailers DC, pagons would most likely say
    1. Just like other companies, spear spends more money on distribution centers than any other elements of its supply chain
    2. Our success is due to the centralization of our DC
    3. We use our DC to facilitate sorting and consolidating products from different suppliers
    4. Our DC are so efficient they are the least expensive par of or supply chain
    5. DC are the most important element of our OP
11. Purchasing is not an activity of acquiring goods or services to accomplish the goals of an organization
    1. TRUE or FALSE
12. Based on the following information, what is the operating efficiency of department A. no of machines = 2 no of shift per day = 1 no of hrs per shift =8 no of days /week =5. Max output in units per machine/hr = 100 max utilization = 90% operator efficiency = 90% actual output for the week = 6000 units
    1. 75 %
    2. 92.6%
    3. 81.0% - **ANSWERED BY SWAPNIL**
    4. None
13. A company needs to purchase 4000 units over the next two months. There are 21 working days the first month and \_\_\_ days the second month. What must be the daily rate be with a level strategy?
    1. 50
    2. 75
    3. 100
    4. 125
14. Manufactured goods in supply chain NW typically flow into
    1. None
    2. **Warehouse**
    3. Retailer
    4. customer
15. konoha is one of the top automotive companies in the world with total assets of $5 Billion. Its total equity is valued at $2 billion. It recorded a total sale of $3 billion of which $750 million went in servicing outstanding debt. Its new CFO, Naruto has been tasked with assessing its current capital structure. So he decided to start his diagnosis by how leveraged was the company. He noticed that the **financial leverage** was
    1. 1.5
    2. 2.5 (Asset /Equity)
    3. 1.67
    4. 2.67
16. What are the objectives of inventory management?
    1. Minimum inventory investment
    2. None
    3. Low cost plant operation
    4. **All**
    5. Best customer service
17. Is the overall goal of the demand forecast is to minimize the error between the forecast and the actual demand
    1. TRUE or False
18. A company with a cumulative longest lead-time of 13 weeks to manufacture has a planning horizon of 11 weeks. Which of following will occur?
19. order releases for the vendor will be inside the lead time
20. constant expediting will occur
21. manufacturing inefficiencies will occur
    1. 1 & 2
    2. 1 &3
    3. 2&3
    4. 1,2 &3
22. What is the term used to refer to the material flow from customer to supplier?
    1. Downstream
    2. None
    3. Upstream
    4. Supply chain
23. What is the position of customer in the supply chain NW?
    1. Upstream
    2. Internal
    3. External
    4. downstream
24. A flat transport structure that support goods in a stable fashion while being lifted by forklift, front loader, work saver or other packing device
    1. Docks
    2. Haulers
    3. Forklift
    4. Pallet
25. If a process that previously produced 150 units Over 8 hrs shift can now produce 190 units. What is the increase in productivity?
    1. 18.75
    2. 78.9%
    3. 26.7% (new –old)/old \* 100
    4. 23.7%
26. Which of these involve in the supply chain?
    1. Marketing and sales
    2. Logistics
    3. Purchasing
    4. **All**
27. Cash flow has become a critical issue in your company due to extending more favorable terms established by your credit department. The following chart summarizes this yrs and las yrs financial situation. The company is currently holding $75 million in gross inventory.

**Last yr last yr this yr**

**12 days**

1. In make to stock requirements, customer orders are satisfied from
   1. Available capacity
   2. Work in process inventory
   3. Raw material supply
   4. Finished goods inventory
2. The ABC classification method would be expected to reveal that
   1. 20% of value in 60% of terms
   2. 20 & 80
   3. 20 & 20
   4. 20 & 40
3. What is most likely to be independent demand?
   1. A sub assembly at the factory
   2. Jet engine
   3. WIP inventory
   4. Raw material for a factory

Extra Questions:

What is the criteria used for sorting product?

ANS: **Sorting Code**