LOGISTICS AND SUPPLY CHAIN MANAGEMENT (MAT3A)

Question Bank and Answer Key

II B.Com (ISM)

UNIT - I

SECTION –A

1. What is Logistics

Ans : Logistics is generally the detailed organization and implementation of a complex operation. In a general business sense, logistics is the management of the flow of things between the point of origin and the point of consumption in order to meet requirements of customers or corporations.

2. Define logistics

Ans : If you refer to the logistics of doing something complicated that involves a lot of people or equipment, you are referring to the skilful organization of it so that it can be done successfully and efficiently.

3. What is the origin of logistics management

Ans : Logistics management is the part of supply chain management that plans, implements, and controls the efficient, effective forward, and reverse flow and storage of goods, services, and related information between the point of origin and the point of consumption in order to meet customer's requirements.

4. What are the types of logistics management

Ans :

- Return Logistics (Reverse Logistics)
- Military Logistics
- Third Party Logistics (3PL)
- Fourth Party Logistics
- Inbound Logistics
- Outbound Logistics

5. Concept of logistics management?

Ans :

(i) The actual work of logistics is supportive in nature. Logistical support is a must for manufacturing and marketing operations.

(ii) The concept of logistics is based on a total system view of the multitude of functions in movement of materials and goods from sources of supply to users. Accordingly, it forces management to think in terms of managing the total system; rather than just one part of it.

6. Concept of physical distribution

Ans :Physical distribution includes all the activities associated with the supply of finished product at every step, from the production line to the consumers. Important physical distribution functions include customer service, order processing, inventory control, transportation and logistics, and packaging and materials

7. What is third party logistics?

Ans : 3PL, Third Party Logistics describes businesses that provide one or many of a variety of logistics related services. Types of services would include public warehousing, contract warehousing, transportation management, distribution management, freight consolidation. A 3PL provider may take over all receiving, storage, value added, shipping, and transportation responsibilities for a client and conduct them in the 3PL's warehouse using the 3PLs equipment and employees or may manage one or all of these functions in the clients facility using the clients equipment, or anything combination of the above. 3PL can be defined as the "Business of proposing physical distribution reforms to a client and undertaking comprehensive physical distribution services."

8. What in inbound logistics

Ans :Inbound logistics refers to the transport, storage and delivery of goods coming into a business. Outbound logistics refers to the same for goods going out of a business.

9. What is 3pls

Ans : A 3PL (third-party logistics) is a provider of outsourced logistics services. Logistic services encompass anything that involves management of the way resources are moved to the areas where they are required. The term comes from the military.

10. What is fourth party logistics

Ans : A 4PL provider is a supply chain integrator. The 4PL assembles and manages all resources, capabilities and technology of an organisation's Supply Chain and its array of providers.

SECTION – B

1. Explain the types of logistics

Ans :

- **Return Logistics (Reverse Logistics):**

In order to increase the sales as well as the market share, many companies advertise that their goods will perform well over a period of time. The customer is, therefore, led to believe that in case he buys the product of that company, he is assured of satisfactory performance of the product. But at the same time, it is very much obvious that the company cannot assure the satisfactory performance of each and every of its product which is sold in the market

- **Military Logistics**

Military logistics is the art and science of planning and carrying out the movement and maintenance of military forces. In its most comprehensive sense, it is those aspects or military operations that deal with:

Design, development, acquisition, storage, distribution, maintenance, evacuation, and disposition of material,

evacuation, and hospitalization of personnel,

acquisition or construction, maintenance, operation, and disposition of facilities.

- **Third Party Logistics (3PL)**

3PL, Third Party Logistics describes businesses that provide one or many of a variety of logistics related services. Types of services would include public warehousing, contract warehousing, transportation management, distribution management, freight consolidation. A 3PL provider may take over all receiving, storage, value added, shipping, and transportation responsibilities for a client and conduct them in the 3PL's warehouse using the 3PLs equipment and employees or may manage one or all of these

functions in the clients facility using the clients equipment, or anything combination of the above.

- **Fourth Party Logistics**

Traditionally, suppliers and big corporations have been meeting the demands by increased inventory, speedier transportation solutions posting on-site service engineers and many times employing a third party service provider. Today they need to meet increased levels of services due to e-procurement, complete supply visibility, virtual inventory management and requisite integrating technology.

- **Cost Effectiveness of Fourth Party Logistics**

Revenue growth by enhanced product quality, product availability, and improved customer service -all facilitated by the application of leading technology.

Operating cost reduction can be achieved through operational efficiencies, process enhancements and procurements. Savings will be achieved by complete outsourcing of supply chain functions and not just selected components.

- **Inbound Logistics**

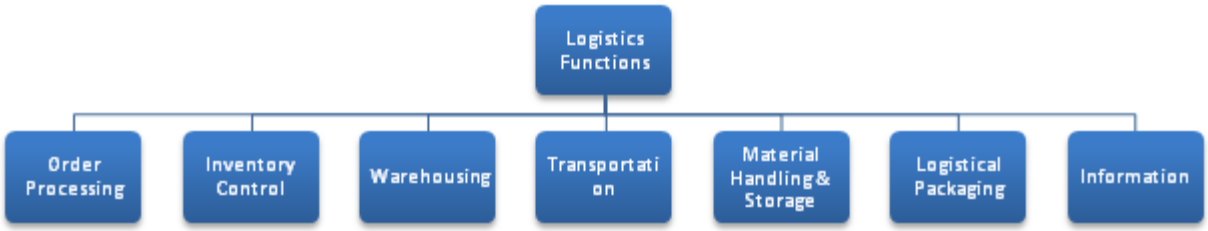
Creation of value in a conversion process heavily depends on availability of inputs on time. Making available these inputs on time at point of use at minimum cost is the essence of Inbound Logistics.

- **Outbound Logistics**

Value added goods are to be made available in the market for customers to perceive value. Finished goods are to be distributed through the network of warehouses and supply lines to reach the consumer through retailers's shops in the market. During conversion value is added to the raw materials and as a result value of the inventory in this case is very high unlike inputs.

2. What are the functions of logistics management

Ans :



3. Explain the objectives of logistics management

Ans :

4. Explain the components of physical distribution

Ans :

(1) Order Processing:

(2) Warehousing:

(3) Transportation:

(4) Organisational Responsibility for Physical Distribution:

(5) Inventory Management:

(6) Other Components:

(7) Logistical Coordination or Market Logistics

SECTION – C

1. Advantages of outsourcing to 3pls

Ans :

- **SHARED COSTS**

Cost efficiency is arguably one of the most compelling benefits of partnering with a 3PL. Instead of paying for an entire facility dedicated to inventory that often fluctuates and for which cost-to-store per product is inefficient, 3PLs allow multiple customers to share the burden of labor, space and transportation costs. Some 3PLs have facilities that house products from multiple customers, each with its own space tailored for the customer and product's needs. These multi-client facilities allow customers to pay for only the space they use—a critical advantage for companies that cannot fill an entire warehouse all year round—improving their return on invested capital.

- **SCALABILITY**

The ability to adjust warehousing space when inventory fluctuates is another huge advantage of leveraging a 3PL. This scalability of space and labor allows customers to be flexible with their inventory during routine shifts in supply and demand, product launches or during seasonal ups and downs. Outsourcing critical warehouse functions provides peace of mind, reassuring companies of all sizes that they can adjust their product flow when needed. If a company owns and operates its own facility, it may experience financial losses at the mercy of any of several factors influencing product supply, demand or availability.

- **GLOBAL REACH**

Perhaps the largest hurdle for companies interested in distributing products overseas is being in the right location at the right time. Even after the international warehouse purchase or lease is final, businesses are still left with the burden of operating a warehouse in another country with different laws and regulations, different currency and unforeseen challenges. Companies interested in exporting should partner with a 3PL that has facilities in all corners of the world—literally. It's essential for businesses to have their products close to their customers, reducing shipping time, improving customer service and cutting costs by eliminating unnecessary travel time between production lines and final touch points. A 3PL with in-country presence understands the local regulations and has ongoing relationships with local governments to facilitate success.

- **ACCOUNTABILITY**

Not all advantages of a 3PL are visible on a financial ledger. One intangible but equally valuable benefit of third-party warehousing is the individualized attention global 3PLs can provide, resulting in increased accountability and transparency in the storing and distribution of products. Instead of multiple people managing product flow from several suppliers all over the world,

partnering with a global 3PL allows companies to reduce the number of touch points required to manage an effective supply chain. And, instead of getting bogged down in communications and visibility management, outsourcing warehousing to a 3PL can help shore up supply chains with distribution and storage processes controlled by a single entity.

- **CONTINUOUS IMPROVEMENT**

Other frequently overlooked benefits of outsourcing warehousing to a 3PL include thought leadership and shared investments, which are especially important for complex industries such as healthcare. For example, having experts across industry sub-segments such as biologics, diagnostics, implantable medical devices and pharmaceuticals helps 3PLs deliver greater value to their customers; this expertise drives better solutions that solve the real pain-points of their customer base and the supply chain. And because 3PLs build solutions for an array of problems, all customers will reap the benefits. Some solutions, for example, require investments ranging from systems operations upgrades to IT improvements. Instead of the improved result belonging exclusively to a single company, it can be made available to all customers because those investments and upgrades were made using the 3PL's resources.

2. Bull whip effect in supply chain

Ans :

The supply chain is a complex group of companies that move goods from raw materials suppliers to finished goods retailers. These companies work together when meeting consumer demand for a product; supply chains allow companies to focus on their specific processes to maintain maximum probability. Unfortunately, supply chains may stumble when market conditions change and consumer demand shifts.

- Definition

The bullwhip effect on the supply chain occurs when changes in consumer demand causes the companies in a supply chain to order more goods to meet the new demand. The bullwhip effect usually flows up the supply chain, starting with the retailer, wholesaler, distributor, manufacturer and then the raw materials supplier. This effect can be observed through most supply chains across several industries; it occurs because the demand for goods is based on demand forecasts from companies, rather than actual consumer demand.

- Forecasting Errors

When companies enter new products into the marketplace, they estimate the demand of the good based on current market conditions. Most companies in the supply order more than they can sell, attempting to prevent shortages and lost sales of goods. This "extra" inventory begins to increase or decrease during the normal market fluctuations of supply and demand. When demand increases, the companies closest to the consumer will increase inventory to meet the consumer demand. When the demand falls, the front-end of the supply chain will decrease inventory, amplifying the extra inventory on each company up the supply chain.

- Behavioral Causes

One cause of the bullwhip effect is normally driven by management behavior at the front-end companies of the supply chain. Retail management never wants to have a stock-out on a popular good, leading to higher orders from the wholesalers. This eventually squeezes each company in the supply chain and creates decreases in inventory.

Another major behavioral effect is the ordering of too much inventory when consumer demand has fallen for an item. Retailers may have raised their inventory levels to avoid a stock-out but are now met with goods that cannot be sold quickly. This creates overstock of inventory for each supply chain company.

- Operational Causes

The main operational cause of the bullwhip effect comes from individual demand forecasts from each company in the supply chain. This causes an increase in demand from companies in the supply chain, but not the actual consumers who will purchase the goods. A lack of communication is also prevalent during operational causes; companies may not supply information up the supply chain regarding current market conditions, causing improper levels of inventory.

- Corrective Measures

To properly manage the fluctuations in consumer demand, implementing a point-of sale (POS) system with a just-in-time (JIT) inventory system. This allows each company in the supply chain to process information electronically regarding individual goods. Understanding consumer demand can then be evaluated based on the order information from the POS system and allow managers to order more goods if needed.

3. Explain the types and range of relationship

Ans : Types of Relationships

- Vertical:

The traditional linkages between firms in the supply chain such as retailers, distributors, manufacturers, and raw materials suppliers

- Horizontal:

Business arrangements between firms that occupy “parallel” positions in the supply chain (e.g. two ocean carriers that share ship capacity)

- Full Collaboration:

Business arrangements between firms that occupy both vertical and parallel positions in the supply chain (e.g. consortium of carriers and shippers working to reduce empty truck movement)

♦Transactional:

Both parties are at “arm’s length”, with limited Commitment

♦Collaborative:

Two or more business organizations cooperate to drive better long term combined results

♦Strategic:

Represents deep and long term commitments among supply chain partners. Firms willingly modify their business objectives and practices to help achieve shared long

UNIT –II

SECTION – A

1. What is inventory control
   Ans : Inventory control, also known as stock control, involves regulating and maximising your company's inventory. The goal of inventory control is to maximise profits with minimum inventory investment, without impacting customer satisfaction levels. Inventory control is also about knowing where all your stock is and ensuring everything is accounted for at any given time.
2. What is demand forcasting
   Ans : Demand forecasting is the art and science of forecasting customer demand to drive holistic execution of such demand by corporate supply chain and business management. Demand forecasting involves techniques including both informal methods, such as educated guesses, and quantitative methods, such as the use of historical sales data and statistical techniques or current data from test markets**.**
3. What is warehousing
   Ans : A warehouse is a commercial building for storage of goods. Warehouses are used by manufacturers, importers, exporters, wholesalers, transport businesses, customs, etc. They are usually large plain buildings in industrial areas of cities, towns and villages.
4. Define warehousing
   Ans : Robert Hughes has defined it in following words, "Warehousing is a set of activities that are involved in receiving and storing of goods and preparing them for reshipment."
5. What are the kinds of warehousing
   Ans :
   1. Private Warehousing
   2. Public Warehousing

6. What are functions of warehousing
   Ans :

1. Receiving of Goods
2. Preparation of Record
3. Identification
4. Storing
5. Packing
6. Information About Receipt
7. Breaking of Bulk
8. To Search the Goods
9. Delivery of Goods

7. What is routing
   Ans : Companies are turning to Geographic Information Systems (GIS) as a key component in their supply chain software. Mapping software provides an easy way for users to visualize data. ... In this

paper the focus is on the transportation (Logistics) decision of the supply chain management, in specific the routing decision

8. What is transportation management
Ans: A transportation management system (TMS) is a subset of supply chain management concerning transportation operations and may be part of an enterprise resource planning system. A TMS usually "sits" between an ERP or legacy order processing and warehouse/distribution module.

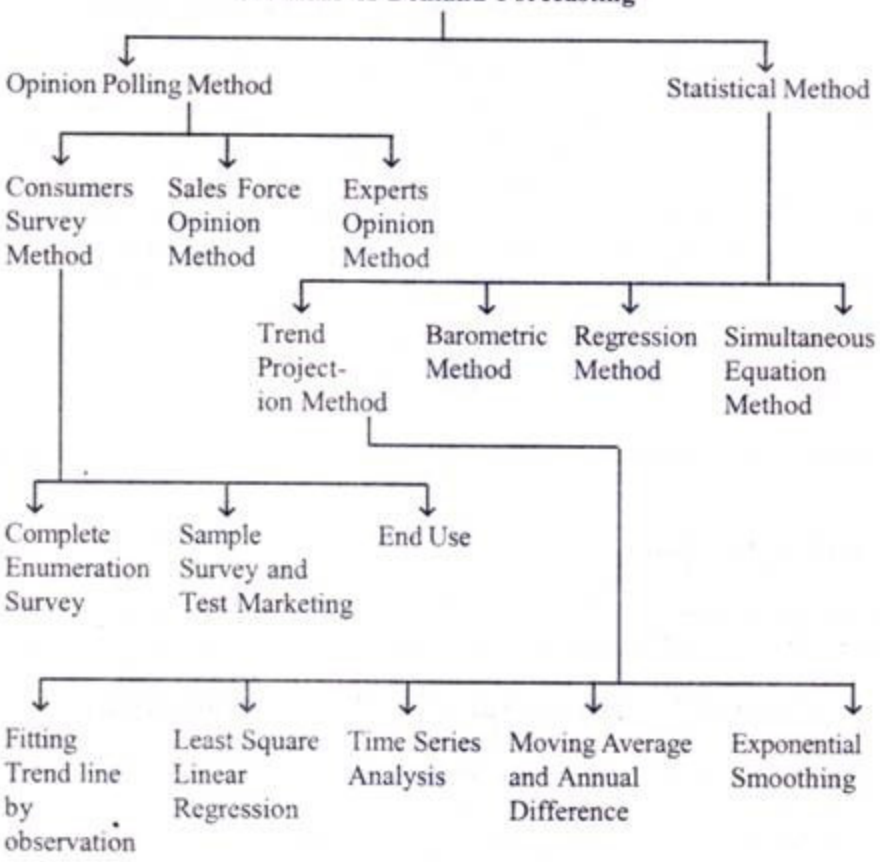
SECTION – B

1. Methods of demand forcasting

Ans :

Table 1.

Methods of Demand Forecasting



2.Importance of demand forcasting

Ans :

1. Helpful in deciding the number of salesmen required to achieve the sales objective.

2. Determination of sales territories.

3. To determine how much production capacity to be built up.

4. Determining the pricing strategy.

5. Helpful in deciding the channels of distribution and physical distribution decision.

6. To decide to enter a new market or not.

7. To prepare standard against which to measure performance.

8. To assess the effect of a proposed marketing programme.

2. What are the forecasting periods

Ans :

1. Short run demand forecast.

2. Long run demand forecast.

4. What are the benefits of transportation management

Ans ;

- Increased Customer Service
- Warehouse Efficiency
- New Delivery Capabilities
- Inventory Reductions
- Cash Flow Improvements

5. What are the types of Inventory control

Ans :

- Raw materials
- Work in progress
- Finished goods

- Transit inventory
- Buffer inventory
- Decoupling inventory

SECTION – C

1. What are the types of forcasting

Ans :

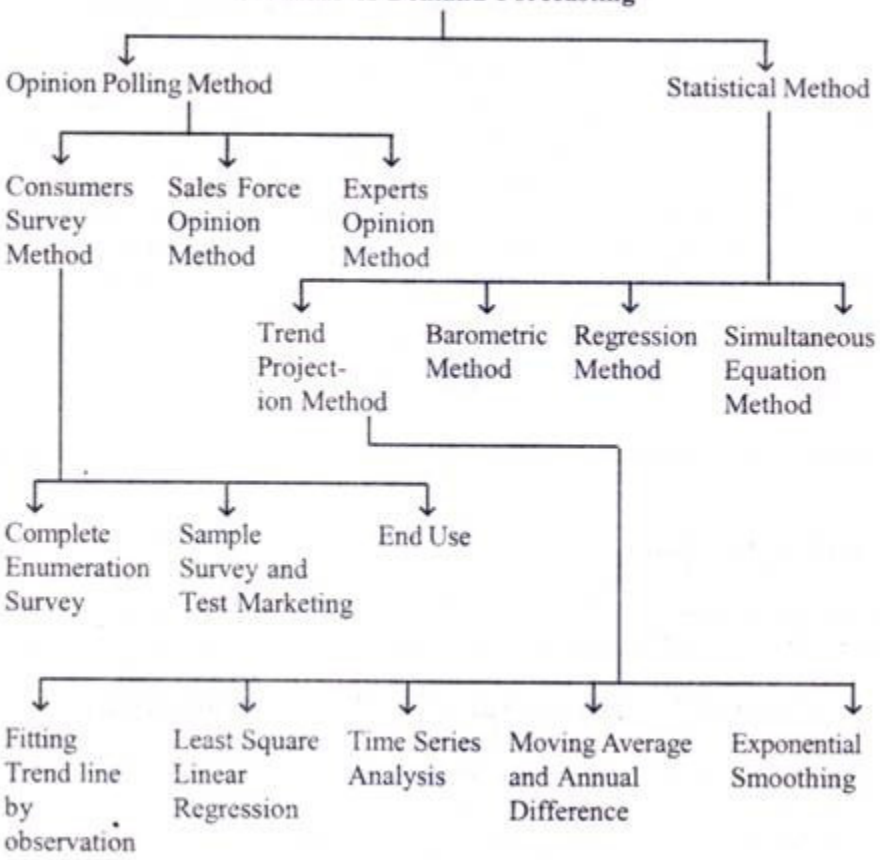
(i) Passive Forecast and

(ii) Active Forecast. Under passive forecast prediction about future is based on the assumption that the firm does not change the course of its action. Under active forecast, prediction is done under the condition of likely future changes in the actions by the firms.

2. Explain the methods of forecasting

Table 1.

Methods of Demand Forecasting



1. Opinion Polling Method:

In this method, the opinion of the buyers, sales force and experts could be gathered to determine the emerging trend in the market.

The opinion polling methods of demand forecasting are of three kinds:

(a) Consumer's Survey Method or Survey of Buyer's Intentions:

In this method, the consumers are directly approached to disclose their future purchase plans. I his is done by interviewing all consumers or a selected group of consumers out of the relevant population. This is the direct method of estimating demand in the short run. Here the burden of forecasting is shifted to the buyer. The firm may go in for complete enumeration or for sample surveys. If the commodity under consideration is an intermediate product then the industries using it as an end product are surveyed.

(i) Complete Enumeration Survey:

Under the Complete Enumeration Survey, the firm has to go for a door to door survey for the forecast period by contacting all the households in the area. This method has an advantage of first hand, unbiased information, yet it has its share of disadvantages also. The major limitation of this method is that it requires lot of resources, manpower and time.

In this method, consumers may be reluctant to reveal their purchase plans due to personal privacy or commercial secrecy. Moreover, at times the consumers may not express their opinion properly or may deliberately misguide the investigators.

(ii) Sample Survey and Test Marketing:

Under this method some representative households are selected on random basis as samples and their opinion is taken as the generalised opinion. This method is based on the basic assumption that the sample truly represents the population. If the sample is the true representative, there is likely to be no significant difference in the results obtained by the survey. Apart from that, this method is less tedious and less costly.

A variant of sample survey technique is test marketing. Product testing essentially involves placing the product with a number of users for a set period. Their reactions to the product are noted after a period of time and an estimate of likely demand is made from the result. These are suitable for new products or for radically modified old products for which no prior data exists. It is a more scientific method of estimating likely demand because it stimulates a national launch in a closely defined geographical area.

(iii) End Use Method or Input-Output Method:

This method is quite useful for industries which are mainly producer's goods. In this method, the sale of the product under consideration is projected as the basis of demand survey of the industries using this product as an intermediate product, that is, the demand for the final product is the end user demand of the intermediate product used in the production of this final product.

The end user demand estimation of an intermediate product may involve many final good industries using this product at home and abroad. It helps us to understand inter-industry' relations. In input-output accounting two matrices used are the transaction matrix and the input co-efficient matrix. The major efforts required by this type are not in its operation but in the collection and presentation of data.

(b) Sales Force Opinion Method:

This is also known as collective opinion method. In this method, instead of consumers, the opinion of the salesmen is sought. It is sometimes referred as the "grass roots approach" as it is a bottom-up method that requires each sales person in the company to make an individual forecast for his or her particular sales territory.

These individual forecasts are discussed and agreed with the sales manager. The composite of all forecasts then constitutes the sales forecast for the organisation. The advantages of this method are that it is easy and cheap. It does not involve any elaborate statistical treatment. The main merit of this method lies in the collective wisdom of salesmen. This method is more useful in forecasting sales of new products.

(c) Experts Opinion Method:

This method is also known as "Delphi Technique" of investigation. The Delphi method requires a panel of experts, who are interrogated through a sequence of questionnaires in which the responses to one questionnaire are used to produce the next questionnaire. Thus any information available to some experts and not to others is passed on, enabling all the experts to have access to all the information for forecasting.

2. Statistical Method:

Statistical methods have proved to be immensely useful in demand forecasting. In order to maintain objectivity, that is, by consideration of all implications and viewing the problem from an external point of view, the statistical methods are used.

The important statistical methods are:

(i) Trend Projection Method:

A firm existing for a long time will have its own data regarding sales for past years. Such data when arranged chronologically yield what is referred to as 'time series'. Time series shows the past sales with effective demand for a particular product under normal conditions. Such data can be given in a tabular or graphic form for further analysis. This is the most popular method among business firms, partly because it is simple and inexpensive and partly because time series data often exhibit a persistent growth trend.

The trend can be estimated by using any one of the following methods:

(a) The Graphical Method,

(b) The Least Square Method.

a) Graphical Method:

This is the most simple technique to determine the trend. All values of output or sale for different years are plotted on a graph and a smooth free hand curve is drawn passing through as many points as possible. The direction of this free hand curve—upward or downward— shows the trend

(b) Least Square Method:

Under the least square method, a trend line can be fitted to the time series data with the help of statistical techniques such as least square regression. When the trend in sales over time is given by straight line, the equation of this line is of the form: $y = a + bx$. Where 'a' is the intercept and 'b' shows the impact of the independent variable. We have two variables—the independent variable x and the dependent variable y. The line of best fit establishes a kind of mathematical relationship between the two variables .v and y. This is expressed by the regression y on x.

(ii) Barometric Technique:

A barometer is an instrument of measuring change. This method is based on the notion that "the future can be predicted from certain happenings in the present." In other words, barometric techniques are based on the idea that certain events of the present can be used to predict the directions of change in the future. This is accomplished by the use of economic and statistical indicators which serve as barometers of economic change.

Generally forecasters correlate a firm's sales with three series: Leading Series, Coincident or Concurrent Series and Lagging Series:

(a) The Leading Series:

The leading series comprise those factors which move up or down before the recession or recovery starts. They tend to reflect future market changes. For example, baby powder sales can be forecasted by examining the birth rate pattern five years earlier, because there is a correlation between the baby powder sales and children of five years of age and since baby powder sales today are correlated with birth rate five years earlier, it is called lagged correlation. Thus we can say that births lead to baby soaps sales.

(b) Coincident or Concurrent Series:

The coincident or concurrent series are those which move up or down simultaneously with the level of the economy. They are used in confirming or refuting the validity of the leading indicator used a few months afterwards. Common examples of coinciding indicators are G.N.P itself, industrial production, trading and the retail sector.

(c) The Lagging Series:

The lagging series are those which take place after some time lag with respect to the business cycle. Examples of lagging series are, labour cost per unit of the manufacturing output, loans outstanding, leading rate of short term loans, etc.

(iii) Regression Analysis:

It attempts to assess the relationship between at least two variables (one or more independent and one dependent), the purpose being to predict the value of the dependent variable from the specific value of the independent variable. The basis of this prediction generally is historical data. This method starts from the assumption that a basic relationship exists between two variables. An interactive statistical analysis computer package is used to formulate the mathematical relationship which exists.

(iv) Econometric Models:

Econometric models are an extension of the regression technique whereby a system of independent regression equation is solved. The requirement for satisfactory use of the econometric model in forecasting is under three heads: variables, equations and data.

The appropriate procedure in forecasting by econometric methods is model building. Econometrics attempts to express economic theories in mathematical terms in such a way that

they can be verified by statistical methods and to measure the impact of one economic variable upon another so as to be able to predict future events.

Utility of Forecasting:

Forecasting reduces the risk associated with business fluctuations which generally produce harmful effects in business, create unemployment, induce speculation, discourage capital formation and reduce the profit margin. Forecasting is indispensable and it plays a very important part in the determination of various policies. In modem times forecasting has been put on scientific footing so that the risks associated with it have been considerably minimised and the chances of precision increased.

Forecasts in India:

In most of the advanced countries there are specialised agencies. In India businessmen are not at all interested in making scientific forecasts. They depend more on chance, luck and astrology. They are highly superstitious and hence their forecasts are not correct. Sufficient data are not available to make reliable forescasts. However, statistics alone do not forecast future conditions. Judgment, experience and knowledge of the particular trade are also necessary to make proper analysis and interpretation and to arrive at sound conclusions.

UNIT - 3 & 4

SECTION –A

1. What is supply chain management

   Ans : In commerce, supply chain management (SCM), the management of the flow of goods and services, involves the movement and storage of raw materials, of work-in-process inventory, and of finished goods from point of origin to point of consumption.

2. What are the concept of supply chain management

   Ans ; Shortly after your alarm clock goes off and the coffee maker kicks on, the aroma of your favorite coffee fills the air. The supply chain is responsible for getting those coffee beans across the world and to your kitchen. Something so common in every household, takes a great deal of planning, demand forecasting, procurement, and logistical expertise to move those beans to local sellers while still fresh. Without a strong supply chain in place, your caffeine-fix options would be severely limited.

3. What is value chain

   Ans : A **value chain** is a set of activities that a firm operating in a specific industry performs in order to deliver a valuable product or service for the market

4. Define value chain

   Ans : A value chain is the whole series of activities that create and build value at every step. The total value delivered by the company is the sum total of the value built up all throughout the company. Michael Porter developed this concept in his 1980 book 'Competitive Advantage'.

5. Components of supply chain

   Ans :

- Plan
- Source
- Make
- Deliver
- Return

6. Needs for supply chain management

   Ans :

- Sourcing raw materials and parts
- Manufacturing and assembly
- Warehousing and inventory tracking
- Order entry and order management
- Delivery to the customer

7. Importance of supply chain

   Ans :

   - Boost Customer Service
   - Reduce Operating Costs
   - Improve Financial Position

8. Types of supply chain management

   Ans : 1. Static and dominated by customer in chain

   2.Static and no domination by any one.
   3. Dynamic and dominated by customer
   4. Dynamic and no dominated by customer

9. What are the Internal challenges of scm
   Ans: 1. Customer Orientation
   2. Culture of Innovation
   3. Orgnaizational structure.

10. Objectives of Supply chain management
    Ans:

- To understandthe role
- To assimilate the differences
- To know the impact of supply chain.

SECTION – B

1. Importance of supply chain management

   Ans : In the ancient Greek fable about the tortoise and the hare, the speedy and overconfident rabbit fell asleep on the job, while the "slow and steady" turtle won the race. That may have been true in Aesop's time, but in today's demanding business environment, "slow and steady" won't get you out of the starting gate, let alone win any races. Managers these days recognise that getting products to customers faster than the competition will improve a company's competitive position.

To remain competitive, companies must seek new solutions to important Supply Chain Management issues such as modal analysis, supply chain management, load planning, route planning and distribution network design. Companies must face corporate challenges that impact Supply Chain Management such as reengineering globalisation and outsourcing. Why is it so important for companies to get products to their customers quickly? Faster product availability is key to increasing sales, says R. Michael Donovan of Natick, Mass., a management consultant specialising in manufacturing and information systems. "There's a substantial profit advantage for the extra time that you are in the market and your competitor is not," he says. "If you can be there first, you are likely to get more orders and more market share." The ability to deliver a product faster also can make or break a sale.

2. Principles of SCM

Ans:

1. Segment customers based on service needs. Companies traditionally have grouped customers by industry, product, or trade channel and then provided the same level of service to everyone within a segment. Effective supply-chain management, by contrast, groups customers by distinct service needs--regardless of industry--and then tailors services to those particular segments.

2. Customise the Supply Chain Management network. In designing their Supply Chain Management network, companies need to focus intensely on the service requirements and profitability of the customer segments identified. The conventional approach of creating a "monolithic" Supply Chain Management network runs counter to successful supply-chain management.

3. Listen to signals of market demand and plan accordingly. Sales and operations planning must span the entire chain to detect early warning signals of changing demand in ordering patterns, customer promotions, and so forth. This demand-intensive approach leads to more consistent forecasts and optimal resource allocation.

4. Differentiate product closer to the customer. Companies today no longer can afford to stockpile inventory to compensate for possible forecasting errors. Instead, they need to postpone product differentiation in the manufacturing process closer to actual consumer demand.

5. Strategically manage the sources of supply. By working closely with their key suppliers to reduce the overall costs of owning materials and services, supply-chain management leaders enhance margins both for themselves and their suppliers. Beating multiple suppliers over the head for the lowest price is out, Andersen advises. "Gain sharing" is in.

6. Develop a supply-chain-wide technology strategy. As one of the cornerstones of successful supply-chain management, information technology must support multiple levels of decision

making. It also should afford a clear view of the flow of products, services, and information. 7. Adopt channel-spanning performance measures. Excellent supply-chain measurement systems do more than just monitor internal functions. They adopt measures that apply to every link in the supply chain. Importantly, these measurement systems embrace both service and financial metrics, such as each account's true profitability.

3. Explain the components of supply chain

Ans :

- Plan

Every company needs a strategy on how to manage the resources in order to achieve their customers demand for their products and services. The supply chain management is developing a set of metric to monitor the supply chain so that it can deliver high qualities and values to customers.

- Source

To create their products, companies need to be very careful when choosing suppliers to deliver their goods and services needed. The managers need to develop a set pricing and delivery system in the supply chain. They can also put processes for managing their goods and goods inventory, for example; receiving shipments.

- Make

In manufacturing the supply chain manager should always schedule the activities that are needed for the production, packaging, testing and preparation for delivery.The most metric-intensive portion of the supply chain, production output and measure levels.

- Deliver

This part is mainly referred to as logistics by the supply chain management. In this case companies coordinate receipts of orders, pick carriers to get products to customers and develop a network of warehouses.

- Return

In many companies this is usually where the problem is – in the supply chain.The planners should create a flexible and responsible network for receiving a flaw and excess products sent back to them (from customers).

4. Role of manager in supply chain

Ans :

- Planning/Scheduling:

• Oversees all planning and scheduling activities.

• Works closely with Sales and Engineering on new jobs and product developments.

•Provides input into staffing and capacity needs in order to maximize productivity and efficiency

•Maintains the standards used for job quotes and schedule lead times.

•Works with engineering to order time studies used for ERP input.

•Responsible for efficient and accurate MRP functionality.

•Negotiates cost reductions.

•Identifies primary and alternate sources for each item needed and encourages suppliers to remain competitive to achieve best value (quality, lead time, partsand service)

•Works with quality manager to qualify suppliers and to monitor their performance.

•Incorporates drawings, quality specifications and requirements into purchase orders to maintain high quality standards and expectations.

•Establishes and enforces procedures to ensure proper recording, storage and tracking of all items purchased by the Company.

•Monitors prices of major commodities; analyzes impact based on annual usage and reports findings to management for budgeting purposes.

•Monitors significant trends, changes in suppliers, and prices to capitalize on opportunities and/or protect company positions.

•Prepares and issues POs for complex or specialized parts/materials to support production and sales.

•Researches and identifies non-standard or at risk parts and assist in developing new sources of supply.

•Contacts carriers to negotiate contracts/pricing, troubleshoot problems, and to arrange/coordinate challenging shipments.

•Manages the relationships between many different suppliers.

•Selects suppliers and works with Quality Manager to qualify and measure performance in areas of quality, on-time-delivery, technical resources/support and ease of doing business.

•Negotiates terms to obtain necessary materials and product in timely and most cost effective manner.

•Solicits promotions, discounts, markdowns, warehousing options and favorable payment terms from suppliers.

•Works with Quality Manager to Identify and resolve problems with suppliers in a timely manner using the Supplier Corrective Action
process (SCAR).

•Oversees the shipping and receiving functions.

•Negotiates in-bound and out-bound freight and carrier contracts and terms.

•Responsible for ordering and importing sea containers, as well as complying with customs regulations and maintaining relationships with freight forwarders and coordinating their efforts

SECTION – C

1. What are the five dimensions of SCM

Ans : 1. **Strategy--**specifically, the alignment of supply chain strategies with the overall business direction. Key decision points for managers here include:

· What is required to align the supply chain with the business strategy?

· What level of customer service must we provide to each customer segment to compete effectively?

· Which channels of distribution best meet our goals and our customers' needs?

2. **Infrastructure,** which affects cost-service performance and establishes the boundaries within which the supply chain must operate. Pertinent questions include:

· How must the physical network of plants and distribution be structured? · Can we rationalise our current network?

· Can we use contract manufacturing or third-party logistics capabilities?

· What transportation services can best link together the network of facilities?

· Which activities should we outsource?

3. Process--the drive to achieve functional excellence and integration across all major processes. Managers must ask themselves the following:

· What are the core supply chain processes driving the business?

· How can we adapt best-in-class approaches to our core processes (e.g., manufacturing, integrated demand planning, procurement, cycle-time compression, dynamic deployment)? · How can we build linkages with our suppliers and customers?

4. Organisation--providing the critical success factors of cohesion, harmony, and integration across organisation entities. Questions to consider include:

· What level of cross-functional integration is required to manage core processes effectively?

· How can we leverage cross-company skills and abilities?

· What performance-measurement and reporting structure can help us achieve our objectives?

5. Technology, which empowers the supply chain to operate on a new level of performance and is creating clear competitive advantages for those companies able to harness it. Companies should address the following points:

· Do our IT platform and core applications software support world-class SCM?

·Where will advanced decision-support capabilities have the greatest impact on business performance?

· What data are required to manage the core business processes outlined above?

· How can we capitalise on advanced communications (e.g., intranets and the Internet) in managing the supply chain?

· How can we leverage enhanced visibility of customer demand and other key operating parameters?

2. Key enablers of supply chain

Ans :

The Four Key Enablers

Analyzing the data and information derived from secondary literature searches as well as the input from UW program participants and practitioner instructors, the study team developed the following list of SMC enablers:

* Organizational infrastructure--how business units and functional areas are organized; how change-management programs are led and coordinated within the existing organizational structure.

* Technology--how technology (not just information technology but also the "physical" materials-management technologies for material design, operations, and materials handling) affects a company's operational and strategic supply chain processes.

* Strategic alliances--how external companies (customers, suppliers, and logistics-services providers) are selected as business allies; how intercompany relationships are built and managed.

* Human resources management--how job descriptions are designed', how positions are filled, how people are recognized and compensated, and how career paths are directed.

The research team surveyed a group of supply chain professionals to determine their ranking of the four enablers identified. The survey sample was drawn from past attendees at UW seminars as well as from other companies, including logistics-services providers, with proven experience in implementing SCM programs. Approximately 200 responses were tabulated.

The survey findings contain a few surprises. As Exhibit 1 shows, the respondents clearly felt that the organizational infrastructure and its associated attributes was the most important enabler of successful supply chain implementation. It was ranked considerably ahead of technology and the other two enablers. (In our survey, a higher ranking--with a "4" being the highest--indicates an area of greatest concern. …