B.Com III Year Examination – November 2016

Part-A (5 X 4 =20 Marks)

1. What is E-Advertising?

It is also known as online advertising it is a form of promotion that uses internet and World Wide Web to deliver marketing messages to attracts customers.
Example: Banner ads, Social network advertising, online classified advertising etc.
The growth of these particular media attracts the attention of advertisers as a more productive source to bring in consumers.
An online advertisement also offers various forms of animation.
The term online advertisement comprises all sorts of banner advertisement, email advertising, in game advertising and key soon.

2. What is Search Engine?

The search results are generally presented in list of result and are often called hits.
The information may consist of web pages, images, information, and other types of files. Some search engines also mine data available in database or open directories.
Search engines work by storing information about many web pages, which they retrieve from the HTML itself.
When a user enters a query into a search engine (typically by using keywords), the engine examines its index and provides a listing of best matching according to its criteria.
Most search engines support the use of Boolean operator AND, OR, and NOT. Some search engines, such as GOOGLE, store all or part of the source page as well as information about the web pages.

3. What is EDI?

Electronic Data Interchange was conceived as a way to electronically imitate paper documents, generate them automatically, transfer them by wire and automatic entry them into the business management systems of the receiving party. For reasons of security and cost of implementation, this has rarely been fully accomplished.

EDI is often defined as the computer-to-computer exchange of formatted business transactions in a standard format. Like other modes of electronic communications such as fax and electronic mail, EDI allows to send information over public or private communications links.

Another definition is “It is the interchange of standard formatted data between computer application systems of trading partners with minimal intervention”.

Electronic data interchange (EDI) is a specific form of multi-organizational system. It is widely understood as the replacement of paper-based purchase orders with electronic equivalents. EDI actually has much broader application than the acquisition process and its impacts are far greater than the mere automation of manual processes. The adoption of EDI is changing how people think, changing

business procedures, and changing how organization interacts with one another. It has great impact on accountants and auditors and thus, these two professionals must be aware of the strength and potential of EDI in changing their role Electronic Data Interchange (EDI) has conventionally been discussed from the perspective of, individual corporations or industry. This view needs to be complemented by an appreciation of the accountants and auditors of the companies that implemented EDI. This paper intends to examine whether the rapid development of electronic data interchange (EDI) has posed a threat to accountants and auditors or is it an opportunity for them to improve the efficiency and effectiveness of their services to clients.

4. What are the risks of E-Payment Systems?

One essential challenge of e-commerce is risk management. Operation of the payment systems incurs three major risks:

1) Fraud or mistake,

2) Privacy issues, and

3) Credit risk.

Preventing mistakes might require improvements in the legal framework. Dealing with privacy and fraud issues requires improvements in the security framework. Curtailing credit risk requires devising procedures to constrict or moderate credit and reduce float in the market.

5. Write about Directories.

Directory services on the WWW provide an index that lists and provides links to web-sites. The sites may be listed in one of many ways like alphabetically or by subject, category or region. For those indexes listed by category, the registrant of the site specifies the category. The correct choice of a category is important because the user navigates through the directory and may not find the site if it is categorized differently than expected by the visitor. Unfortunately, many directory services have multiple categories that can accurately depict many businesses.

Currently web sites can be registered at no charge to a number of directory services such as Yahoo, InfoSeek and The Yellow Pages. Other directories like Galaxy may charge a fee. Registering with multiple directories is important in order to cast as wide a net as possible and because users are traversing the net using many different directories as a service. Many ISPs that serve as web site hosts register the sites with many of these directories as a service. A waiting time of two or three weeks is typical because many of the directory services screen the new sites for illegal or illicit material.

Search Engine and Directory Registration:

Today, most of the companies are taking initiation to attract visitors to their site and also providing facilities to interact with them. The best way to attract visitors to their site is to register with directories and search engines.

6. What is Internet?

A set of computer networks made up of a large number of smaller networks is called Internet. In other words, Internet is networks of networks.

7. What is HTML?

At the heart of the web is a simple page description language called HTMl. It is a common basic language of interchange for hypertext that forms the fabric of the web. It is based on an international electronic document standard called Standard generalized markup language (SGML)

HTML enables document orientation for the web by embedding control codes in ASCII (American standard code for information interchange) text to designate titles, headings, graphics and the hypertext links, making links of SGML's powerful linking capabilities. HTML was meant to be a language of communication which actually flows over the network HTML was designed to be sufficiently simply as to be produced easily by the people and automatically generated by the programs.

8. Write about SMTP.

SMTP (Simple Mail Transfer Protocol) is used by client mail programs to make requests about mail delivery. A wide variety of mail programs such as Eudora, Unix mail, and PINE, use SMTP to send mail to a mail server. The SMTP specifies the exact format of a mail message and describes how mail is to be administered.

Part-B (5 X 10 =50 Marks)

9.(a). Write about importance of E-Commerce.

Electronic Commerce can offer both short term and long-term benefits to the companies. Not only can it open new markets, enabling you to reach new customers, but it can also make it easier and faster for you to do business with your existing customer base. Moving business practices, Such as ordering, invoicing and customer support, to network-based system can also reduce the paperwork involved in business-to-business transactions. When more of the information is digital, one can better focus on meeting your customer's needs. Tracking customer satisfaction, requesting more customer feedback, and presenting custom solutions for the clients are just some of the opportunities that can stem from E-commerce.

The following are the important benefits of E-commerce.

1. Internet or web based e-commerce is more affordable than traditional EDI.
2. Internet or web based E-commerce can reach more business partners.
3. More geographically dispersed customer based.
4. lower costs for procurement processing.
5. Cost of purchases can be lowered.
6. reduction in inventories (storage and handling)
7. lower cycle time.
8. Better customer services
9. lower sales and marketing.

The first three benefits are relative benefits of internet and web based E-commerce over traditional EDI methods. The cost and installation of EDI system is generally quits high and it has typically only been beneficial to larger firms that have enough sales volume to justify the costs of developing their own networks or Subscribing to a value added network (VAN)

A VAN is a service to which a firm can subscribe. Vans provide many services such as data transmission, EDI translation and storing and forwarding the messages.

Because of software developments that allow web based EDI systems to interface with traditional EDI systems, businesses of all sizes can now transact with one another. This expands the number of potential electronic business partners. The internet offers a greater choice of global partners with which it can conduct E- Commerce.

Procurement costs can be lowered by traditional EDI system by consolidating purchases, developing relationships with key suppliers, negotiating volume discounts etc. The cost of items purchased can be lowered due to the ability to seek out and negotiate with a greater number of suppliers.

A reduction in inventory is desirable because of the associated reduction in storage , handling, insurance and transmission and administrative costs. Internal E-Commerce

can help firms to more optimally order the inventories by electronically linking suppliers and purchasers together. The production cycle time is the time it takes a business to build a product beginning with design phase and ending with the completed product. Internet E-commerce is enabling the reduction of cycle time by allowing engineers and production teams to electronically share design specifications etc.

Customer service can be enhanced using internet E-Commerce by helping the customer to access information before, during and after the sale. Internet allows firms to reach many customers in a very low cost fashion.

9.(b). What is the impact of E-Commerce on Business Models?

E-Business :

The term E- Commerce is restricting however does not firstly encompass the true nature of many types of information exchange occurring via telecommunication devices. The term E-Business also includes the exchange of information not directly related to buying and selling of goods. Business are using electronic mechanisms to distribute information and provide customer support. These activities are not commerce but they are business activities. Thus the term electronic businesses is a broader way and eventually replace electronic commerce.

Difference between E-commerce and EDI:

EDI is a subset of E-commerce. A primary difference between EDI and E-commerce is that E-commerce encompasses a broader commerce environment than EDI. Traditional EDI systems allow pre-established trading partners to electronically exchange business data. These EDI systems are generally expensive to implement. E-Commerce allows the market place to exist where buyers and sellers can meet and transact with each other.

E-commerce if forcing businesses to rethink their traditional business models. E-commerce is about reengineering outward facing process including industry process reengineering

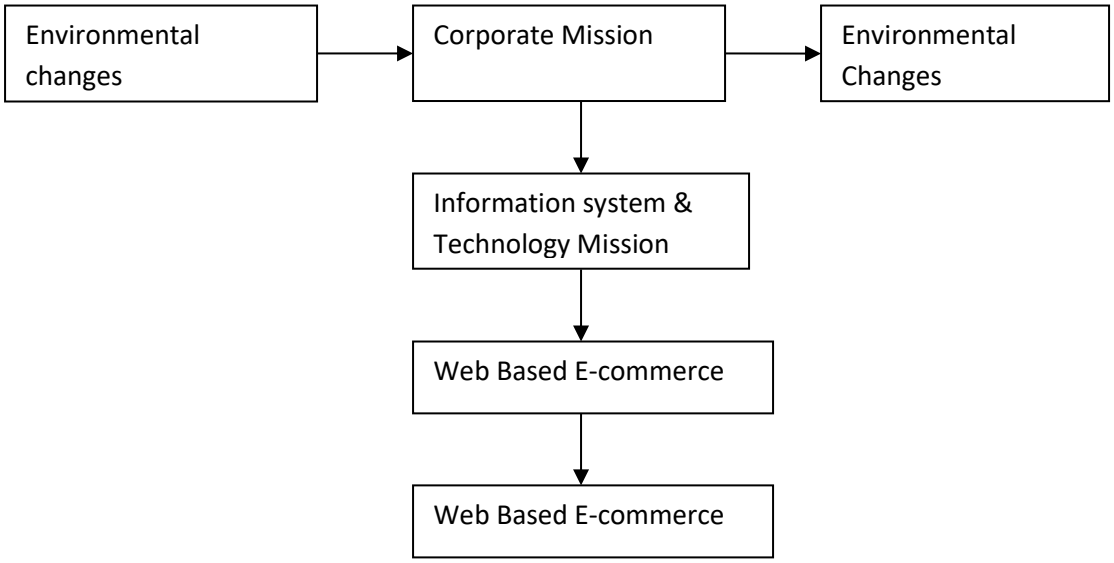
Thus E-commerce is not just technology , it is the way of conducting business that has potential impact on every aspect of the organizational value chain.

Thus new business models are necessary that integrate E-commerce initiatives with overall business goals.

Overall Business & E-commerce goal similarity:

E-commerce strategies need to be formulated so that they help a business to achieve its overall business goals. The relationship between the organizations corporate mission and goals and its web based E-commerce plan as shown below

Business and Commerce Goal similarity



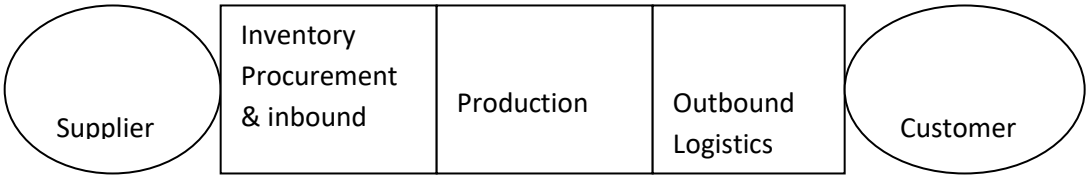
Environmental Changes may cause a business to rethink or adjust its mission and goals, such as entrance of new competitions into market place. The environmental changes may be business trends.

Once the corporate mission and goals are set then information system and technology group's mission can be set to help accomplish that mission. Ultimately a web based E-commerce plan can be setup.

Impact of E-commerce on Value Chain:

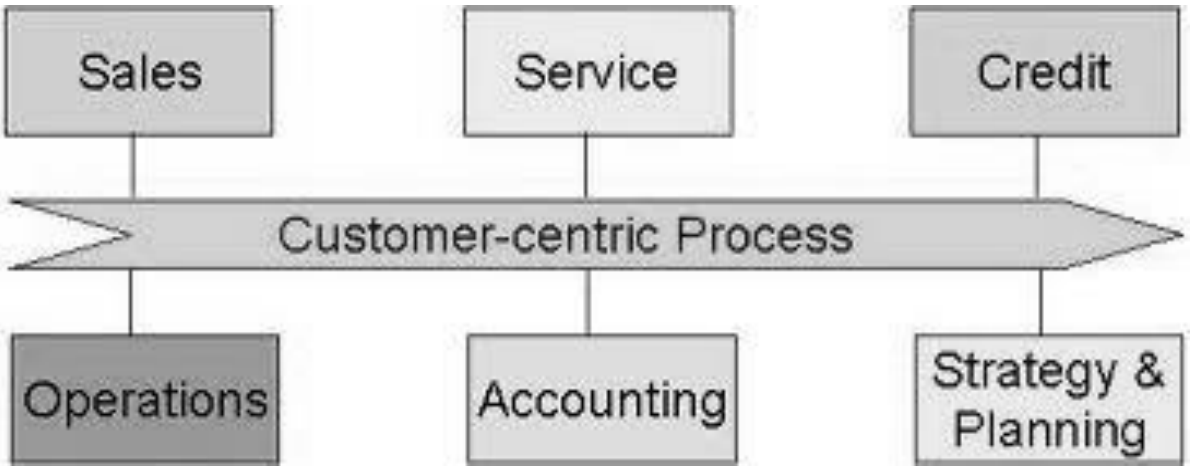
The traditional value chain typically depicts the information system data as flowing sequentially through the processes with inputs and outputs to the supplier at the back-end stage and to the customer at the front-end stage. Firms engaging in e-commerce may share information with their customers and suppliers at many stages of the value chain.

Traditional Value Chain



the above figure shows a traditional value chain which is no longer rich enough to encompass relationships underlying flow of information between a firm, its customer and suppliers.

Customer oriented Value Chain



The above figure shows a new view of the value chain with the customer set at the center of focus to a firms information system that links all phases of its processes together. The customer oriented value chain enables the customer to access the firms(suppliers) information system at virtually every phase in order to access the assess the progress of the order. The internet is enabling companies to fully integrate their supply chains and this integration has a dramatic influence on the structure of participating companies to fully integrate their supply chains.

Three Pillar Model:

The three electronic pillars of E-commerce which support open market processes :

- Electronic information.
- Electronic relationship.
- Electronic transactions.

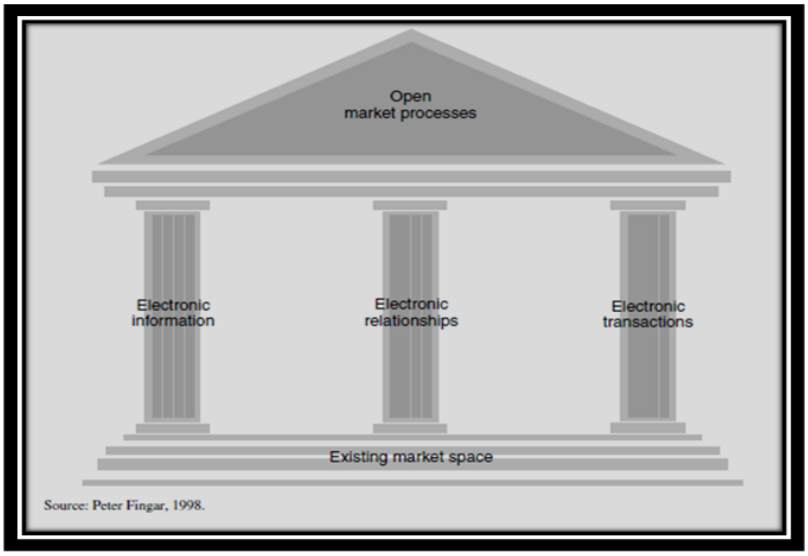
Electronic information is similar to virtual information space . The WWW is viewed as a “global responsibility “, of documents and multimedia data , constructing an electronic information pillar is easy most word processing software packages will easily convert the documents into a web-readable format ,in the website , the web page does not freeze or links do not head the visitor to a dead end .

Electronic relationships is the central pillar and this is similar to virtual communication placing information on products and services offer on a web site does not mean that potential customer or guests will visit that web site again , once they are visited .

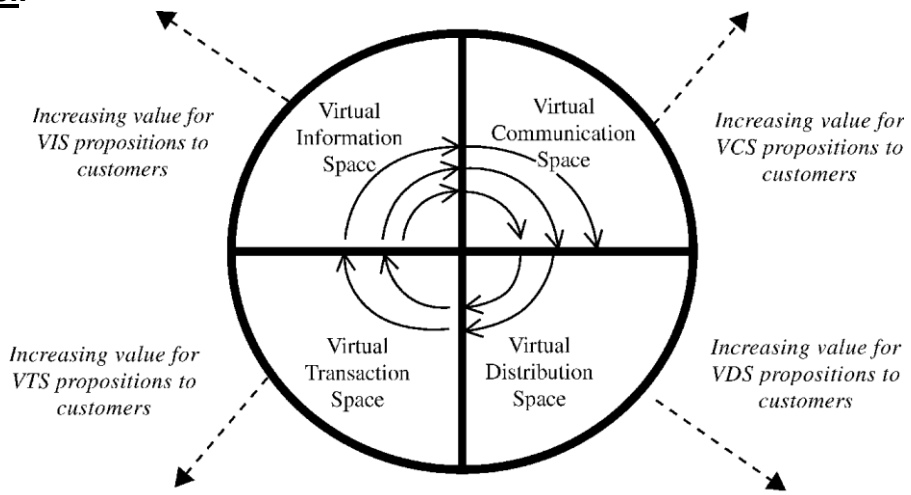
The electronic transactions pillar is similar to virtual transactions space and also encompasses virtual distribution space. Many business have built an electronic inf pillar and some have but or are building an electronic community pillar and fewer have constructed electronic transactions pillar.

Two problems in constructing the pillar are:-

- Engaging a meaningful sufficient, negotiable data.
- Keeping data transactions data secure.



ICDT (information, communication, distribution, transaction)Business strategy Model.



Source: Stamoulis *et al.* (2001)

This is the model developed by Albert Angehrn called the information, communication, Distribution ,transaction (ICDT). It is used as the basis for discussing the internet strategy of business while the internet strategy of business may be the primary or over riding strategy of the business .

10.(a). Explain about Encryption Techniques.

Confidentiality of electronic messages is a necessity of electronic commerce application. The primary method of achieving confidentiality is **encryption .** messages are initially created in a form that is readable and understandable by the sender, and by any other individuals as well if they have access to the message. The message, when it is in this form is commonly referred to as **clear text** or **plaintext** .

Encryption is defined as the transformation of data, via a cryptographic mathematical process into a form that is unreadable by anyone who does not posses the appropriate secret key. That data in this unreadable form is commonly referred to as **cipher text.** If

a message is intercepted and read, it will be useless since the cipher text message is unintelligible to any party not possessing the secret key. In order to be able to read and understand the message, the encrypted message must be transformed back to its original state- the clear text. The process os restoring cipher text to clear text is called **decryption.**

The key contains the binary code used to mathematically transform a message, two types of cryptographic mechanisms can be used to provide an encryption capability: **Symmetric** cryptography where entities share a common secret key; and a public key cryptography (also known as **Asymmetric** cryptography) where each communicating entity has a unique pair (a public key and a private key).
For symmetric and asymmetric encryption, the relative strength of the cryptography is most commonly measured by length of the key, in bits. However it should be noted that the true strength of the confidentiality service may depend on a number of variables associated with the encryption function :

- The security protocol used to invoke the encryption function.
- The trust in the platform executing the protocol or application.
- The cryptographic algorithm.
- The length of the key(s) used for encryption/decryption.
- The protocol used to manage/generate those keys.
- The storage of secret keys(key management keys and encryption keys).

The strength of a system usually increases as the key length increases. This is because a longer key length implies a larger number of possible keys, which makes searching for the correct key a more time consuming process. Any key length less than 64-bits is no longer considered to be secure.

Symmetric Encryption Keys:
In symmetric key systems, both the sender and the receiver of the message must have access to the same key. This shared secret key is used to both encrypt and decrypt the message.

Asymmetric Cryptography:
In 1976, a concept referred to as public key cryptography was introduced by Whitefield Diffie and martin Hellman, called the **Diffie-hellman** technique. The public-key method allows a sender and a receiver to generate a shared, secret key over an insecure telecommunications line. This process uses an algorithm based on the sender's and receiver's public and private information. The following steps are used

1. The sender determines a secret value a.
2. A related value , A, is derived from a. A is made public.
3. The receiver determines a secret value b.
4. A related value, B is derived from b. B is made public.
5. the Diffie-Hellman algorithm is used to calculate a secret key corresponding the key pairs (a, B) and (b, A).

the sender knows his private value, a and the receiver's public value, B. the receiver knows her private value, b , and the sender's public value, A. the secret key is generated from (a, B) and (b, A) by an algorithm that makes it computationally infeasible to calculate the secret key from solely knowing the two public values, A and B. In order to generate the secret key, one of the secret values must be known. The

secret key is shared avoiding the problem of transmitting it over a insecure telecommunications line.

Good encryption practices:

The following are the few good encryption practices that foster stronger security.

1. **Password maintenance:** never share your secret password. A password can be used to protect your private key, and therefore your digital signature.
2. **Key length:** use an appropriate key length whenever possible. The longer the key length, the greater the security. For domestic use a key length of at least 64-bits should be used .
3. **compressed files:** in order to reduce transmission time, data compression is frequently used to reduce the size of a file. Most loss less data compression techniques are based on removing redundancy from the file.

10.(b). Write about NNTP, S-HTTP.

Network News Transfer Protocol(NNTP):

The protocol used for distributing news articles in a Newsgroup. A newsgroup is a discussion group in which computer users throughout the world participate. Users interested in a particular topic may subscribe to the same newsgroup. Boundaries such as age, gender and background generally do not play a role in the discussion, since users usually only see messages from each other. Someone can email a message called an **article** to the newsgroup at any time. The message then becomes available for others to read. They can respond to the article sharing their opinions or expertise. This in turn may stimulate others to respond. In this way, a question or an opinion can create a lively and lengthy discussion

SHTTP:- (Secured Hypertext Transfer Protocol) SHTTP will enable the incorporation of various cryptographic messages, formats such as digital signature Algrithms (DSA) & RSA standards into the both their client & servers.

11.(a). Explain about Electronic Payment Systems.

Electronic payment (E-Payment) means paying the amount for purchased goods electronically which was developed when guided transmission media were used for transferring information.

Electronic Fund Transfer is defined as a process of transferring funds electronically from one financial institution to another. This type of electronic transfer started using different electronic devices like computers, telephone devices, electronic terminals, telecommunications devices. This transfer is done for ordering, instructing and authorizing a bank to debit/credit an account.

Banking and financial payments:

- Large-scale or wholesale payments (e.g., bank-to-bank transfer)

- Small-scale or retail payments (e.g., automated teller machines)
- Home banking (e.g., bill payment)

- **Retailing payments:**

  - Credit Cards (e.g., VISA or MasterCard)
  - Private label credit/debit cards (e.g., J.C. Penney Card)
  - Charge Cards (e.g., American Express)

11.(b). Discuss about Mercantile process model from Consumer's perspective

Mercantile Process Models:

It defines the interaction between the consumer and the merchant for online commerce. This is necessary because to buy and sell goods a buyer, a seller and other parties must interact in ways that represent standard business process. A well established standard process for processing credit card purchasers has contributed to the wide spread dissemination of credit cards. The establishment of common mercantile process model is expected to increase the convenience for consumers.

Mercantile models from the Consumers Perspective:

The online consumer expects quality and convenience, value, low price etc. to meet their expectations and understand the behavior of online shopper there is a need for the business process models that provides the standard product / service purchasing process. The process model for a consumer point of view consists of seven activities that can be grouped into three phases. They are

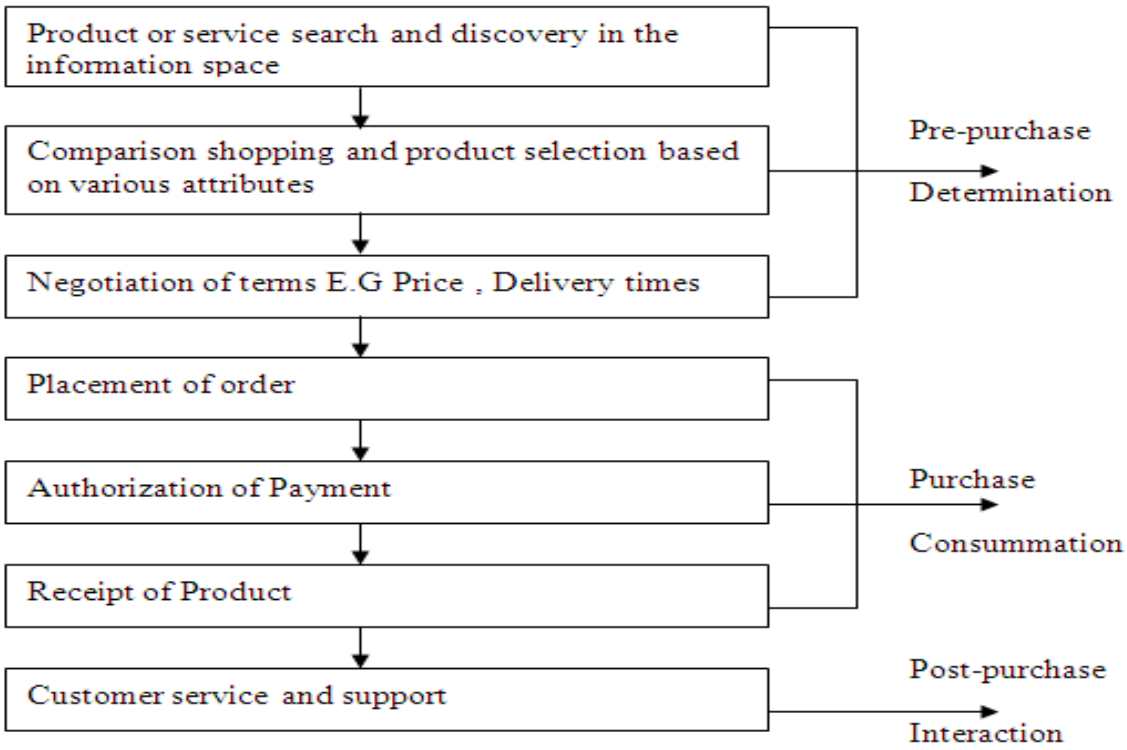
1. Pre-Purchase
2. Purchase consummation
3. Post-purchase interaction phase.

Steps taken by customer in purchasing:

1. **Pre purchase Determination:** This phase includes search and discovery for a set of products in the larger information space applicable of meeting customers' requirements and product selection from the smaller set of products based on attribute comparison.

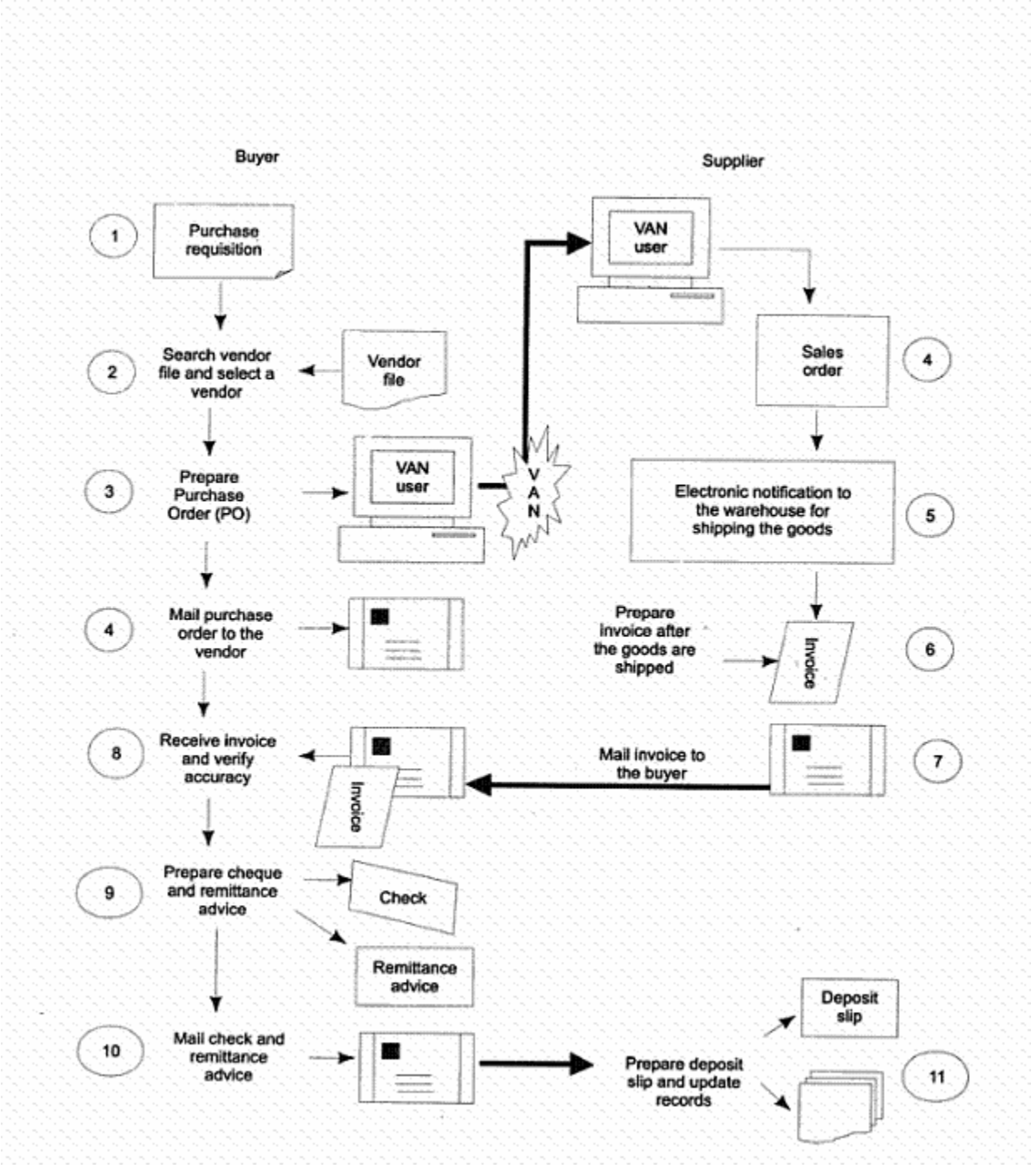
2. **Purchase Consumption:** This phase includes mercantile protocols that specify the flow of information and documents associated with purchasing and negotiation with merchants for suitable terms such as price availability and delivery dates.

Post Purchase interaction: This phase includes customer service and support to addresses customers complaints, product returns & product defects.



12.(a). Write about (i) Partial EDI (ii) Fully integrated EDI

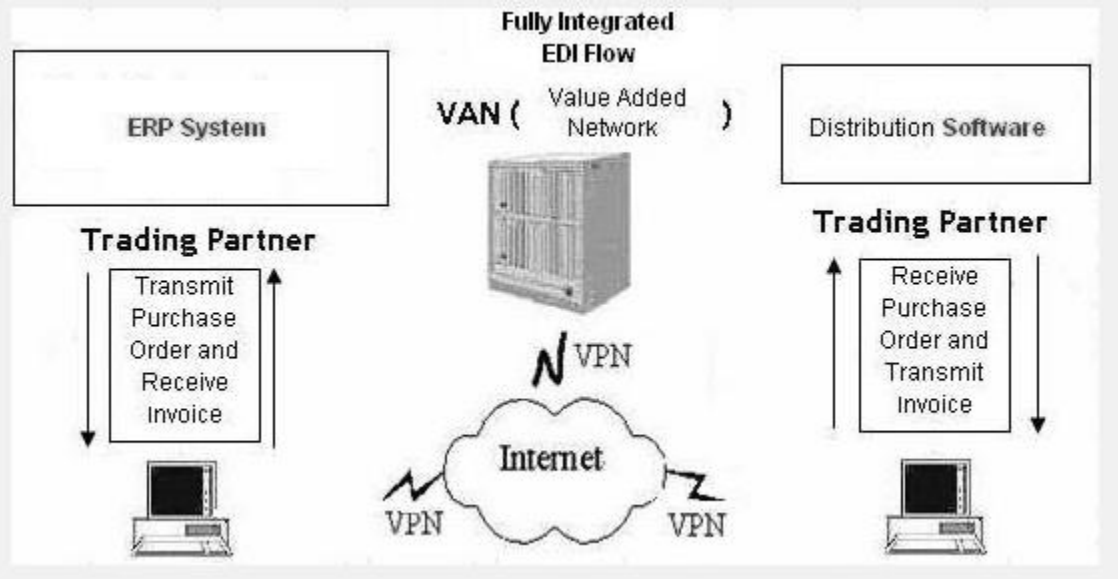
In a Partially Integrated EDI System, the process begins the same as in a non-EDI system. A purchase requisition is completed by the requesting department and submitted to the purchasing department. A purchasing agent reviews the purchase requisition. Again, if other similar requests have been received, then the requisitions may be combined to take advantage of quantity discounts. The purchasing agent then manually reviews the available vendors for price and inventory availability. Once a vendor is selected, the partially integrated EDI system differs from the non-EDI system. The purchasing agent does not manually complete a purchase order, but logs onto a computer system that displays a computerized purchase order form. The agent keys in the appropriate data and submits it. Because the purchasing agent does not manually fill out a form and then submit it to data processing, the chance for a clerical error in data entry is reduced. Once the electronic purchase order is submitted, the data is transferred to a VAN and then channeled from there to the appropriate vendor's mailbox. The vendor retrieves its order form the VAN and a sales order is automatically generated. Because another data entry setup is removed, the chance for a data entry error to occur at this point is eliminated since no additional data entry is required to convert the purchase order to a sales order. A credit checking procedure is most likely conducted by the EDI system at this point. The electronic system notifies the warehouse personnel to ship the goods from the warehouse.



Fully Integrated EDI Systems:

Fully Integrated Systems EDI systems encompass electronic data sharing throughout all aspects of the purchasing and payments cycle. The processing of the actual payment and remittance advice is called Financial EDI. Fully integrated EDI including financial EDI provides firms with the greatest cost.

The fully integrated EDI system allows the purchasers computer system to electronically check inventory levels and production schedules to determine whether the requested item in stock or when it scheduled to be produced.



The above diagram is an illustration of the second type of EDI, more commonly known as Integrated EDI. This is where EDI messages are sent automatically and are received by the recipient for automatic processing. At the end of the day the effectiveness and success of EDI is measured by the degree of integration of EDI as the communication mechanism for the company and its trading partners. The extent of this integration is the true measurement of what makes an EDI investment truly successful. The flow of EDI depends on the sophistication of the system and itss EDI software. EDI programs that integrate with the internal systems are much more preferred over software that requires the re-keying of data.

12(b). What is the importance of EDI in large scale business?

EDI service arrangement provides the different features, which further becomes the benefits of EDI.

1. **Business Opportunities:** EDI service greatly increases the business opportunities, not only with the government, but also with many private sector trading partners through wider diffusion of procurement information.

2. **Quality:** To improve the quality in the EDI service arrangement by keeping the better record arrangement, removing the errors in the data and reducing the processing time are the major factors. Also less reliance on human interpretation of data and the minimized unproductive time can improve the quality.

3. **Reduced Inventory:** Reduces need for inventory frees capital. EDI makes its faster and more accurate filling of orders, helps reduce inventory and assists you in “Just-In-Time” inventory arrangement.

4. **Lower Mailing Cost:** EDI service arrangements lower the mailing costs. There is reduction in the mail room sorting/distribution time, elimination of lost documents, reduction of postage and other mailing costs.

5. **Reduce Order Time:** EDI is much fast in processing the order and the EDI service arrangement make it faster to make the term EDI more efficient. This is high customer satisfaction with faster response to orders with less paper to handle. Using the EDI service arrangement can do also faster billing. Also orders are faster, so deliveries of goods are faster and enhance the performance of the EDI service arrangement.

6. **Better Information:** To make the decision good, there be need of accurate information, which can be only be provided by the EDI service arrangement. As the dramatic growth of electronic commerce on the Internet, the concept of using the Internet for EDI has become the hottest idea of the industry.

BENEFITS OF EDI

Firms engaged in the process of Just-In-Time (JIT) raw materials inventory systems typically use fully-integrated EDI systems to ensure that the supplies necessary for the production process arrive at the desired time. If the goods arrive too early, the production plants have costs associated with the maintaining the inventory; if the goods arrive too late, the production stops which costs the purchasing organization money.

Users with fully integrated systems experience a wide range of tangible benefits:

- Reduced lead time from placing the order to receive the goods.
- Reduced errors in producing manual documents and data entry.
- Reduced processing costs
- Increased inventory supply and chain processing information for customers.

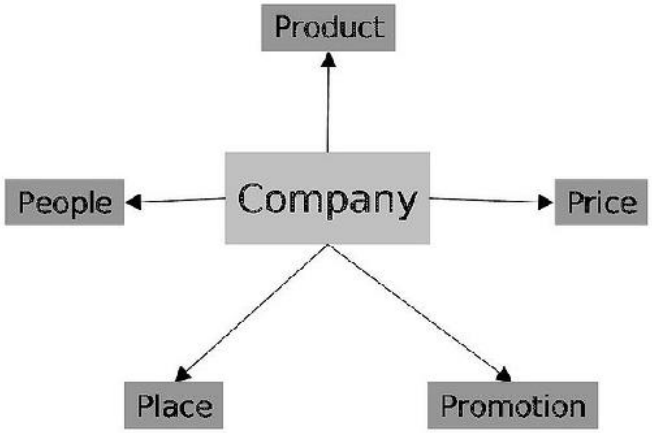
The extent to which a firm reaps these benefits depends on the degree of integration of their EDI system into their operations and the quality of the system employed. EDI systems based on the philosophy of replacing manual documents with electronic documents will reap some benefits; however, EDI systems based on the philosophy of sharing mission critical data with key trading partners will reap the most benefits.

13.(a). Write about E-Marketing Techniques

E-Marketing Techniques

- Search Engines
- Directories
- E-mails
- Interactive sites
- Banners
- Spam Mails
- E-Mail Chain Letter

13.(b). Discuss about applications of 5 P's.



The customer-orientation value chain enables the customer to access the firm's information system at virtually every phase in order to assess the progress of the order. A customer may link to the firm's inventory data such as price, quantity and availability prior to entering into a sales contract. Further, the customer may be able to electronically receive design and product specification prior to entering into a sales contract. The actual sales may be placed electronically and a promised or expected shipped date given by the supplier's information system to the customer. Once the order is places, the customer may be able to check the status of the order/service placed. The customers can also check the shipping status of orders placed with a supplier that have been completed and are in the shipping process.

The customer oriented value chain that places the customer as the center of attention, with information flows passing from a business to its customer for all facets of its operations, except for its own procurement where the firm interfaces with its suppliers. However, to the extent that a procurement process affects production or delivery of a good, information may be shared with the customer.

The four Ps of marketing Product, Pricing, Place and Promotion are examined and discussed within the context of the customer oriented value chain and internet marketing. Figure below illustrates the relationship between the customer oriented value chain and the four Ps and a fifth P(Personalization). In essence, the customer oriented value chain model, because of its focus in serving the customer during all phases, necessities the synthesis of *business internet marketing* techniques into virtually all business processes.