BCS-062

E-COMMERCE

June 2015

1.

(a) What is meant by Internet Commerce ? Explain the two main business models of various companies that do commerce over Internet.

Ans: Internet commerce is defined as the use of Internet for purchase and sale of goods, services, including service and support after sale. Internet commerce brings some new technology and new capabilities to business.

These are divided into two main categories :

* Transplanted Real-World Business Models

* Native Internet Business Models

Transplanted Real-World Business Models : Business activities which occur naturally in real-world and have been transplanted onto the Internet.

The following are some of the business models that fall into the above mentioned category:

- Mail-Order Model: A web site shop front is employed to sell physical goods which are then posted or delivered (Amazon.corn).
- Advertising Based Model: Where advertising revenues support the operation of a free service (Yahoo.com)
- Subscription Model: Users subscribe for access to a database of digital products; well suited for combination with digital delivery (informationweek.com)
- Free Trial Model: Software is available for free download or distributed on CD-ROM but will only work for a limited period or will not be fully, functional until a fee is paid.
- Direct Marketing Model: The use of e-mail based direct marketing (often ends up as spam).
- Real Estate Model: Sell web space, domain names and e-mail addresses.
- B2B: Businesses transact between corporate entities via the Internet, including financial, research, legal and employment services.
- Incentive Scheme Models: Opportunities to win prizes or to secure "free" or inexpensive goods or services are used to entice people to accept advertising or to provide personal information.

Native Internet Business Models: Business activities that have evolved in the Internet environment and are native to it.

The following are some of the business models that fall into above mentioned category:

- Library Model: The web site that offers free information.
- Freeware Model: It provides free software (basic versions may be free) or . open source software.
- Information Barter Model: Some sort of exchange of information over the Internet between individuals and organizations.
- Website Hosting and Other Internet Services: Hosting web servers, e-mail as well as URL and e-mail re-direction services.
- Digital Delivery Model: Takes place when digital products are purchased.
- Digital Products Model: Images, movies, animation, audio, text, certificates and software will be available as products.
- Access Provision Model: Provides access to Internet from enterprises called Internet Service Providers (ISPs).

(b) Explain the procedure to buy a book from a Web-based Bookshop. What are the advantages and disadvantages ? Explain briefly.

Ans: Procedure to buy a book from a Web-based bookshop:

Online bookstores that allow customers to browse through different books and select any book they want with a single click while lounging in the comfort of their homes or lounges are known as internet-based bookstores.

Following are the steps to buy a book from a web-based bookshop:

1. Log in: Open website of online bookshop and log in to the website. Customers must first sign up for an account on website.
2. Search for the book: Use the search bar to find the book you are looking for based on title, author, ISBN etc..
3. Once you find the book, click on it for more details.
4. Add to cart: To buy the book, click on the "add to cart" button.
5. Review cart: Proceed to the shopping cart to review selected items.
6. Checkout: After shopping, users proceed to checkout, where they confirm their delivery address and make payment using any of the payment options given.
7. Confirm purchase: Review your order and submit your purchase. You should receive a confirmation email shortly.

Each Internet Bookshop follows a specific shopping procedure. For the convenience of a new customer, these web sites include various tabs such as the following amongst others:

- How to order,
- How to become a member,
- How to check out,
- Shopping cart facility,
- Help desk,
- Discount/special packages,
- Payment procedure and options, and
- Delivery options.

Advantages of web-based bookshop:

* Convenience: Online bookshops are accessible 24 x 7. The access is available to anyone, at any time, from anywhere. Instead of having to go to a physical store, customers can peruse and buy books from the convenience of their homes.

* Web-based book shop offers a much larger selection of books than physical stores.

* These bookshops are extremely useful to people looking for specific books. Any book not available nearby can be obtained from any part of the Country/World by just ordering online thus avoiding long distance travel and saving time.

* Consumers may quickly check costs on several websites to make sure they're getting the greatest bargain. In most of the instances, there will be a discount on the price of the book. Often have special promotions, discounts and membership rewards that can make books more affordable for customers.

* These bookshops act as databases of a vast amount of information about books currently available in the market. All Internet users can use these databases and have knowledge of the same.

* Most web-based bookshops provide customer reviews and ratings for books. This feedback can help potential buyers make informed decisions based on the experience of others.

* Purchasing books online usually includes the option for home delivery.

Disadvantages of web-based bookshop:

- Shipping costs: Purchasing books online charge extra as packing and shipping charges which adds to the overall costs.

- As there is no physical inspection of the product by customer before purchase, there is a risk of receiving book in a damaged condition.
- Delivery times may vary, and customers might have to wait days or even weeks for their orders to arrive.
- 'Security issues are another concern while making payment online especially through credit cards.
- Returns and exchanges: Returning books purchased online can be more complicated than returning them to a physical store.

2.

(a) Explain any five security concerns in E-Commerce. 5

Ans: E-commerce can be secured if the entire commerce chain is secured. That is, the client computer, the messages travelling on the communication channel and associated servers.

Some of the major security concerns in E-commerce are :

- Active Content: Active content is a major area of concern in client security. Active content is the program embedded transparently in web pages which can cause actions to occur. For example, display moving graphics, download and play audio etc. It is used in e-commerce in the form of Java applets, ActiveX controls etc. It creates security risk because malicious programs hidden inside webpage can reveal and destroy the confidential and sensitive information in the form of cookies. These cookies remember user names, passwords, etc. on the client computers.
- Virus, Worms and Trojan Horses: Another security issue that arises to client and his computer are the viruses, worms and Trojan horses which can damage the systems. These viruses can delete stored data or manipulate actual data. Malicious software can damage the system and is a major threat.

Virus is a piece of software that is designed to replicate itself.by copying itself into other programs stored in a computer which can cause the program to operate incorrectly or corrupt the Computer's memory.

Worm is software that is capable of reproducing itself. It can also spread from one computer to the next over a network.

Trojan horse is a program that appears to have a useful function but contains a hidden function which is harmful.

- Masquerading : Another security concern of client is masquerading. Masquerading occurs when one person uses the identity of another to gain access to a computer. This may be done in person or remotely.
- Another major concern in any e-commerce application is the security of the communication channel. That is, the security of the message when it passes through the Internet. The data/message being transferred through the network must be secured from any unauthorized disclosure and alterations. Any theft of sensitive or personal information may become a significant danger. Replaying old messages, tapping of communications, unauthorized changes to messages, misuse of remote maintenance accesses are the dangers to the communication channel.
- Another major concern in any e-commerce application is the security of the web server, commerce server and databases. Database contains valuable and sensitive information. Any loss or manipulation of stored data can create irreparable damages. The server is required to be protected from break-ins, site vandalism, and denial of service attacks. The more complex software becomes, the higher is the probability that errors exist in the codes.

(b) What are the different components in the on-line delivery of goods and services ? Explain their role. 5

Ans: Different components in the delivery of goods and services online are:

* E-shoppers: They are the end-users of the goods and services. E-shoppers buy products and delivery services from e-retailers. They examine internet marketplaces, choose items, and finish transactions. Provide valuable insights into products, services, and the overall shopping experience, influencing future decisions of both businesses and other customers. Their preferences and feedback drive market trends and influence businesses decision.

* E-Retailers: They are the primary stakeholders responsible for creating and offering goods and services. They buy delivery services from delivery operators and logistics intermediaries. They must ensure product availability, manage inventories, set prices and deliver quality customer service. They also coordinate with shipping providers for delivery of goods to customers. Handle inquiries, manage returns and exchanges, and provide support throughout the purchase journey. Use internet marketing, sales, and tailored suggestions to draw in and keep consumers. Make sure that products are sourced on time, keep up with suppliers, and streamline logistics for effective delivery.

* Delivery operators: Delivery services are crucial for transporting goods from e-retailers to e-consumers. They need to ensure that packages are delivered in timely and safe manner

to customers' doorsteps in an efficient manner. Give companies and consumers access to real-time tracking data to promote openness and confidence.

3.

(a) How does M-commerce differ from E-commerce? Explain the various technology components that help to perform the commerce transactions using mobile devices.

Ans:

M-commerce	E-commerce
M-commerce stands for Mobile commerce.	E-commerce stands for electronic commerce.
M-commerce is a subset of e-commerce that refers specifically to transactions conducted using mobile devices, such as smartphones and tablets.	E-commerce refers to the buying and selling of goods and services online using the internet.
M-commerce includes not only online purchases made through mobile devices, but also mobile payments, mobile banking, and other transactions facilitated by mobile technology.	E-commerce includes not only buying and selling goods over Internet, but also various business' processes within individual organizations that support the goal.
Examples of M-commerce includes mobile banking like paytm, in-app purchasing Amazon mobile app.	Examples of E-commerce includes Amazon, Flipkart, Quikr, Olx websites.
M-commerce is conducted using mobile devices such as smartphones and tablets.	E-commerce is conducted using desktop or laptop computers.
M-commerce offers a wider range of payment options, including mobile wallets and contactless payments.	Several methods have evolved to pay your dealers such as Credit Cards, Debit Cards, PayPal account, Direct Online Money Transfer etc.
Its reachability is more than that of e-commerce only due to the use of mobile devices.	Its reachability is comparatively low than the m-commerce as it is not so good in portability.
M-commerce devices are easy to carry and portability point of view it is good.	E-commerce devices are not easy to carry and portability point of view it is not so good.

The following are the main technology components which help perform the commerce transactions using mobile devices:

* GPRS (General Packet Radio Service) is a mobile data standard that offers band width between 9.6 kbps and 115 kbps via GSM (Global System for Mobile Communications)

network and enables simultaneous receiving and transmission. It is essentially a packet switching wireless protocol which enables continuous connectivity for mobile devices. It provides packet-switched data transmission services to 2G and 3G cellular networks. GPRS is a "best-effort" service, meaning that the throughput and latency can vary depending on network conditions and the number of users sharing the service.

* WAP (Wireless Application Protocol) is a protocol that involves Wireless Markup Language (WML). Like HTML, it provides support for text and image presentation, etc. for mobile devices. It is a technical standard that enables access to internet services on wireless devices like mobile phones. It provides a framework for how these devices can communicate with web servers and access data services. WAP was created to function with various wireless network technologies in order to provide mobile devices with access to enhanced services and internet content.

* W-CDMA (Wideband Code Division Multiple Access) Wideband Code Division Multiple Access (WCDMA) is a 3G mobile technology that uses CDMA principles and a broader radio band to increase data transfer rates in GSM systems. It offers 2 Mbps bandwidth approximately. When compared to previous 2G technologies, it provides faster data rates and better call quality.

* UMTS (Universal Mobile Telecommunications System) also known as 3G network which offers 2 Mbps approximately for both up-linking and down-linking.

* Satellite based communication provides wide coverage over various geo locations. Satellite-based communication utilizes satellites orbiting the Earth as relay stations to transmit and receive radio frequency (RF) signals, enabling communication between distant locations. The satellite and its control systems make up the space section of these systems, while the ground stations and terminals make up the ground segment. Signals are transmitted from ground stations to the satellite (uplink), amplified and retransmitted back to Earth (downlink), and then received by another ground station or user terminal.

4.

(b) List any five benefits of EDI.

Ans: Benefits of EDI:

* Increased efficiency: It speeds up business-to-business transactions and communication by reducing the need for paper-based procedures. It reduces the amount of manual labor and duplication involved in exchanging corporate papers.
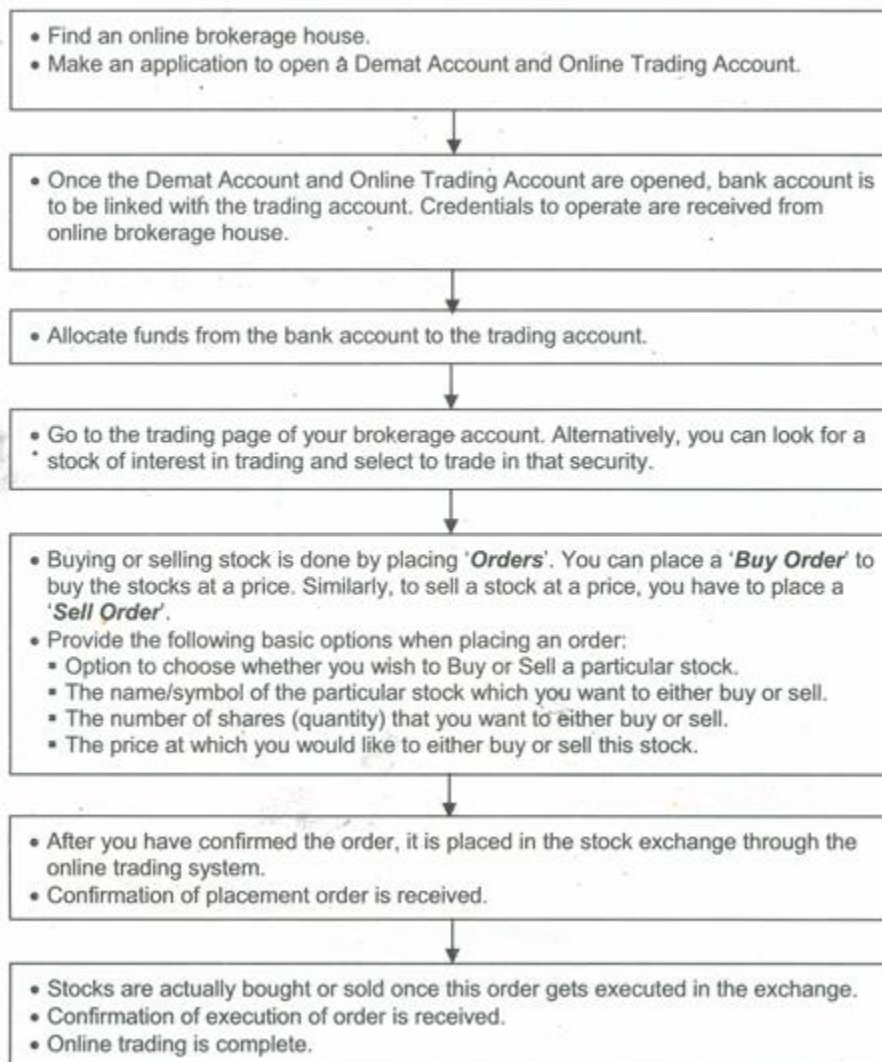
* It makes business exchange transactions automated.

* Directly results in higher revenue and sales because of improved collaboration.

* EDI lowers labor costs and postage and paper expenses for businesses by reducing manual entry and errors.

* More accurate orders and invoices result from automated data exchange, which reduces the possibility of human error.

5.

(a) Explain the online trading procedure with the help of a diagram. 5

Ans:

- Find an online brokerage house.
- Make an application to open a Demat Account and Online Trading Account.

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- Once the Demat Account and Online Trading Account are opened, bank account is to be linked with the trading account. Credentials to operate are received from online brokerage house.

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- Allocate funds from the bank account to the trading account.

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- Go to the trading page of your brokerage account. Alternatively, you can look for a stock of interest in trading and select to trade in that security.

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- Buying or selling stock is done by placing 'Orders'. You can place a 'Buy Order' to buy the stocks at a price. Similarly, to sell a stock at a price, you have to place a 'Sell Order'.
- Provide the following basic options when placing an order:
  - Option to choose whether you wish to Buy or Sell a particular stock.
  - The name/symbol of the particular stock which you want to either buy or sell.
  - The number of shares (quantity) that you want to either buy or sell.
  - The price at which you would like to either buy or sell this stock.

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- After you have confirmed the order, it is placed in the stock exchange through the online trading system.
- Confirmation of placement order is received.

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- Stocks are actually bought or sold once this order gets executed in the exchange.
- Confirmation of execution of order is received.
- Online trading is complete.

Opening a trading and Demat account with a registered online brokerage firm is the first step in starting to trade online. While the trading account makes it possible to execute buy

and sell orders, the Demat account is essential since it stores your shares in an electronic format.

After opening the Demat Account and Online Trading Account, the bank account needs to be linked to the trading account. Credentials to operate are obtained from an online brokerage firm. Transfer funds from the bank account to the trading account.
Visit your brokerage account's trading page or search for a specific stock to trade that security.
When a trader decides to buy or sell a stock, they place an order through the online brokerage platform. You can place a 'Buy Order' to buy the stocks at a price. Similarly, to sell a stock at a price, you must place a sell order.
When placing an order, we have to include these essential information:
• Option to choose whether you wish to Buy or Sell a particular stock.
• The name/symbol of the particular stock which you want to either buy or sell.
• The number of shares (quantity) that you want to either buy or sell.
• The price at which you would like to either buy or self this stock.
The order is entered into the stock market via the online trading system once you have confirmed it. Confirmation of placement order is received. Stocks are actually bought or sold once this order gets executed in the exchange. Confirmation of execution of order is received. Online trading is complete.

(b) Explain the two categories into which Search Engines are classified. 5

Ans: Search engines are classified into two categories.

- Crawler based search engine: hese are the most common type of crawler based search engine. These search engines called robot or bat, generally index sites based on the content and links to your website. Google and Alta vista are examples. The exact method of ranking the website by crawler based search engine is kept confidential as rules keep on changing with time .
- Human powered directories: These are compiled by human reviewers who examine and evaluate description of website and then they rate the contents using their own criteria. Normally, this type of combination is done for listing by paid search engines. Offer more curated and relevant results, but have a smaller scope compared to crawler-based engines.