

# E-COMMERCE CLASS NOTES.

## Automated ledger posting

UPI = Unified payments Interface

Meaning of ledgers.

A ledger is basically a record in which we record transactions of a specific nature. Every ledger relates to a particular person, asset, expense or revenue.

## Digital signature.

It is a type of electronic signature that encrypts documents with digital codes that are particularly difficult to duplicate.

→ A digital signature (standard electronic signature) takes the concept of traditional paper-based signing and turns it into an electronic "fingerprint". This "fingerprint" or coded message, is unique to both the document and the signer & binds them together.

→ It is used to validate the authenticity and integrity of a message, software or digital document.

Digital signatures cryptographically bind an electronic identity to an electronic document and the signature cannot be copied to another document.

## Attributes of Digital signature.

Authentication:- Authentication means the act of proving who you say you are. Authentication means that you know who created and sent the message. Digital signature is used to authenticate the source of messages. It ensures the user of the sender.

Integrity:- Integrity ensures that when a message is sent over a network, the data that arrives is same as the data that was originally sent. Integrity is the assurance that the information is trustworthy and accurate. Digital signature ensures the integrity of message.

Non-repudiation:- this is an important criteria of digital signature. As digital signatures ensure the authentication of the message, so the sender can't repudiate it later. At the same time it also ensures the identity of the receiver, so the receiver can't repudiate it later.

## NACH.

National automated clearing house was a system introduced by the National Payments Corporation of India, for interbank, high volume, electronic transfers, which were periodic in nature.

→ The NPCI introduced NACH as an improvement over the existing Electronic Clearing System (ECS), and consolidate multiple ECS systems running all over the country. The NACH system is used for bulk towards the distribution of subsidies, dividends, interests, salary, pension, etc. and also for bulk transactions towards the collection of payments for telephone, electricity, water, loans, investments in mutual funds, insurance premium, etc.

## Advantages of NACH.

It hopes to have a national reach, & bring together all core banking branches of its partners branches. It allows a common set of standards & rules & even includes support for Aadhar based transactions.

→ NACH also provides a high level of security and enables the partners to scale in a cost-effective manner. The amount of manual intervention has been reduced, with less paperwork and friction between institutions.

→ NACH also reduces the turn-around time for mandate activation from 30 days, in case of ECS, to around 30 days, in case of ECS, to around 10 days. The new Mandate Management System, creates a unified format for mandate across all its business partner banks, maintaining the legacy registration process.

## Online Services.

Online services refer to any information and services provided over the internet. These services not only allow subscribers to communicate with each other, but they also provide unlimited access to information. Online services may be free or paid.

Online Services within the purview of this unit are:-

- a) Financial services. ✓
- b) Travel services. ✓
- c) Career services.
- d) Online auctions
- e) Online portals
- f) Online learning
- g) Online publishing ✓
- h) Online entertainment. ✓

### Financial Services:-

Financial services are the economic services provided by the finance industry, which encompasses a broad range of businesses that manage money, including credit unions, banks, credit card companies, insurance companies, accountancy companies, consumer-finance companies, stock brokerages, investment funds, individual managers, and some government-sponsored enterprises.

Online financial services (OFS) include a broad range of financial services assessed and delivered through digital channels, including payments, credit, savings, remittances and insurance. - Digital channels refers to the internet, mobile phones, ATMs, POS terminals etc.

Online learning:- It is the education that takes place over the internet. (11|3|21).

→ Online learning, or virtual classes offered over the internet, is contrasted with traditional courses taken in a brick-and-mortar school building.

→ Online learning is when you take courses online instead of in a physical classroom. If your schedule makes it hard to attend classes, if you prefer studying at your own pace or if you live far from campus, online learning might be for you.

### ADVANTAGES OF ONLINE LEARNING:-

- 1) Efficiency:- Online learning offers teachers an efficient way to deliver lessons to students. Online learning has a number of tools such as videos, PDF's, podcasts, and teachers can use all these tools as part of their lesson plans.
- 2) Accessibility of Time and place:- It allows students to attend classes from any location of their choice. Online lectures can be recorded, archived and shared for future reference. This allows students to access learning material at a time of their comfort.
- 3) Affordability:- Another advantage is reduced financial costs. Online education is far more affordable compared to physical learning. This is because online learning eliminates the cost points of student transportation, student meals, and most importantly, real estate.
- 4) Improved student attendance:- Since online classes can be taken from home or location of choice, there are fewer chances of students missing out on lessons.
- 5) Suits a variety of learning styles:- Every student has a different learning journey and a different learning style. Some students are visual learners, while some students prefer to learn through audio.

Similarly, some students thrive in the classroom, and other students are solo learners who get distracted by large groups.

## DISADVANTAGES OF ONLINE LEARNING:-

- 1) Inability to focus on screens:- For many students, one of the biggest challenges of online learning is the struggle with focusing on the screen for long periods of time. With online learning, there is also a greater chance for students to be easily distracted by social media or other sites.
- 2) Technology issues:- Another key challenge of online classes is internet connectivity. While internet penetration has grown in leaps and bounds over the past few years, in smaller cities and towns, a consistent connection with decent speed is a problem.
- 3) Sense of isolation:- Students can learn a lot from being in the company of their peers. However, in an online class, there are minimal physical interactions between students and teachers. In this situation, it is imperative that the school allow for other forms of communication between the students, peers, and teachers. This can include online messages, emails and video conferencing that will allow for face-to-face interaction and reduce the sense of isolation.
- 4) Teacher training:- Online learning requires teachers to have a basic understanding of using digital forms of learning. But very often, teachers have a very basic understanding of technology. Sometimes, they don't even have the required resources and tools to conduct online classes.  
It is important for schools to invest in training the teachers with the latest technology updates so that they can conduct their online classes seamlessly.
- 5) Manage screen time:- Increased screen time is one of the biggest concerns of online learning. Sometimes students also develop bad posture and other physical problems due to staying hunched up in front of a screen. A good solution would be to give the students plenty of breaks from the screen to refresh their minds and their body.

## RESOURCES OF ONLINE LEARNING:-

In general, when taking an online degree program you might encounter resources like:-

- a) E-books
- b) Journals
- c) Videos
- d) Recorded lectures
- e) Quizzes
- f) Discussion forums.
- g) Live Q&A sessions, and
- h) Interviews

## Online Entertainment

Online entertainment helps to get rid of stress and tension. Online entertainment platforms took place in smartphones and entertainment made easy, everywhere as well as affordable too.

Eg:- Social networks, mobile games, Mobile casinos, Music streaming, live video streaming, etc..

## TOP 5 SOURCES OF ENTERTAINMENT.

- i) Netflix:- An american company worth more than \$ 15.794 billion, deal in services like online streaming and media production. Started back in 1997, Netflix is one of the top online entertainment platforms. There are more than 148 million paid and over 154 million free subscribers of netflix.

- 2) Hotstar:- Hotstar is an Indian online streaming company owned by Star India. It has English, Hindi, Telugu, Tamil and content in many other languages. Hotstar has more than 300 million subscribers across the world.
- 3) Hulu:- Hulu is a video on demand service based in the US and fully controlled and owned by Walt Disney. Hulu has around 130 million subscribers in total. It is one of the most popular streaming platforms in the US.
- 4) Amazon Prime Video:- Prime Video is an American internet video on demand service owned by Amazon, launched back in 2006. Amazon Prime Video has over 100 million subscribers.
- 5) Popcornflix :- Popcornflix LLC is a website and over-the-top service offering free ad-supported streaming video of feature-length movies and episodes. It is owned by Screen Media Ventures.

### ADVANTAGES OF ONLINE ENTERTAINMENT.

- a) It is a source of entertainment.
- b) It enhances your mental health.
- c) It teaches you lots of things.
- d) It keeps you updated.
- e) It gives you an inspiration.

### ONLINE PUBLISHING.

(12 | 3 | 2)

Electronic Publishing (a.k.a. publishing, digital publishing, or online publishing) includes the digital publication of e-books, digital magazines, and the development of digital libraries and catalogues. It also includes an editorial aspect, that consists of editing books, journals or magazines that are mostly destined to be read on a screen.

#### What is digital publications?

Digital publications is electronic publishing which is also referred to as e-publishing or digital publishing or online publishing. Includes the digital publication of e-books, digital magazines, and the development of digital libraries and catalogues.

The kind of products produced and/or distributed digitally are those produced through traditional printing techniques. These are:-

- E-newspapers
- E-magazines.
- Adverts
- DVD or CD cover.
- Leaflets.
- Training materials
- Promotional materials.
- E-books.
- Flyers.

#### How are digital publishing products used?

These products are used to:-

- 1) Inform an audience, eg. newspapers, e-periodicals.
- 2) Educate an audience, eg. instructional material, 'how to' guides.
- 3) Entertain an audience, eg. e-magazines, e-books.
- 4) Market a product, eg. posters, leaflets.
- 5) Promote an event or product eg. advert.
- 6) Provide advice and support, eg. health, travel guides.

### ONLINE CAREER INDUSTRY.

The business of searching for jobs online has grown from a market niche to a multi-million-dollar, rapidly consolidating industry that relies on the eager search activities and employment dreams of millions of job seekers.

Next to travel services, job hunting services have been one of the internet's most successful online services.

### Some Online careers

- Online tutor.
- Personal trainer.
- Virtual assistant.
- Online writer.
- Email marketer.
- Freelance Writer.
- Proof reader.

### List of online career options to work from home:-

a) **Affiliate marketer**:- This is one of the most exciting online career opportunities. Affiliate marketing is a type of performance-based marketing. In this job profile, a business compensates an affiliate marketer based on clicks or the revenue generated through the traffic.

**Skills required**:- The major skills required to form a career are problem solving, creativity in marketing, basic technical skills, people skills, productivity management, social media marketing, money management.

b) **Content Developers**:- Content is the heart of any organization. An online content developer is responsible for developing a company's content strategy as well as creating its deliverables. With most startups finding an online mode suitable for content management they often prefer to hire potential candidates online mode more suitable for content management, they often prefer to hire potential candidates online.

**Skills required**:- Creative thinking skills, eye for detail, multi-tasking, content management system, content mapping tools, writing skills, digital communication skills, strategic thinking.

## ONLINE AUCTION

Online auction is an auction which is held over the internet. Like auctions in general, online auctions come in a variety of types like ascending English auctions, descending Dutch auctions and others, which are sometimes not mutually exclusive.

It is safe to say that an online auction is an auction or bidding that is held over the internet. It is a web space where the buyers and sellers meet, website is only mediator.

## ADVANTAGES OF ONLINE AUCTIONS

- Convenience.
- Saving time and money
- Wider audience.
- Instant update
- Easy comparison of prices before bidding.
- Plenty of choice.

## DISADVANTAGES OF ONLINE AUCTIONS

- Fraud
- Fly by night website.
- Internet savvy

## WEB PORTAL

A web portal is a specially designed website that brings information from diverse sources, like emails, online forums and search engines, together in a uniform way. Usually, each information source gets its dedicated area on the page for displaying information (a portlet); often, the user can configure which ones to display.

A portal may use a search engine's application programming interface (API) to permit users to search intranet content as opposed to extranet content by restricting which domains may be searched.

### TYPES OF WEB PORTAL.

- Job portal.
- News portal.
- Travel portal.
- Real Estate Portal.
- E-commerce portal.
- Social network portal.
- Intranet web portal.
- Education Portal.

## ELECTRONIC RETAILING

(17/3/20)

E-retailing (E-tailing) is the sale of goods and services through the internet. E-tailing can include business-to-business (B2B) and business-to-consumer (B2C) sales of products and services.

E-retailing is the process of selling products, directly to the consumer, through Internet.

→ E-tailing can include business-to-business (B2B) and business-to-consumer (B2C) sales of products and services.

→ Amazon.com (AMZN) is by far the largest online retailer providing consumer products and subscriptions through its website.

→ Many traditional brick-and-mortar stores are investing in e-tailing through their websites.

### TYPES OF ELECTRONIC RETAILING.

#### Business-to-consumer (B2C) E-tailing

Business-to-consumer detailing is the most common of all e-commerce companies and the most familiar to most internet users. This group of retailers includes companies selling finished groups of products to consumers online directly through their websites. The products could be shipped and delivered from the company's warehouse or directly from the manufacturer. One of the primary requirements of a successful B2C retailer is maintaining good customer relations.

#### Business-to-business (B2B) E-tailing

Business-to-business detailing involves companies that sell to other companies. Such retailers include consultants, software developers, freelancers, and wholesalers. Wholesalers sell their products in bulk from their manufacturing plants to businesses. These businesses, in turn, sell those products to consumers.

#### Real World Examples.

a) Amazon - it is the largest online retailer providing consumer products and subscriptions through its website. Amazon's website shows the company generated more than \$11.6 billion in profit or net income<sup>2</sup>. Other e-tailers that operate exclusively online and compete with Amazon include Overstock.com and JD.com.

- b) Alibaba group - it is China's largest e-tailer, which operates an online commerce business throughout China and internationally. Alibaba adopted a business model that not only includes both B2C and B2B commerce, but it also connects Chinese exporters to companies around the world looking to buy their products.
- c) The company's rural Taobao program - it helps rural consumers and companies in China sell agricultural products to those living in urban areas. For the fiscal year 2020, Alibaba generated nearly \$ 72 billion in annual revenue while posting just \$ 19.8 billion in profit.

## BRICK AND MORTAR STORES (OFFLINE BUSINESS)

A brick and mortar store/offline business is a business outlet with one physical location or more. For example, the shops you'll find in your local shopping center are known as brick and mortar shops or offline businesses.

At present many customers still prefer a brick and mortar store where they can go and physically view the product before purchasing it, as well as ask physically rather than virtual shop assistants for advice.

## ADVANTAGES OF ONLINE RETAILING

- 1) Easy access to market :- in many ways the access to market for entrepreneurs has never been easier. Online market places such as ebay and amazon allow anyone to set up a simple online shop and sell products within minutes. See selling through online market places.
- 2) Reduced overheads:- selling online can remove the need for expensive retail premises and customer-facing staff, allowing you to invest in better marketing and customer experience on your e-commerce site.
- 3) Potential rapid growth:- selling on the internet means traditional constraints to retail growth - eg. finding and paying for larger - are not major factors. With a good digital marketing strategy and a plan to scale up order fulfillment systems, you can respond and boost growing sales. See planning for e-commerce.

## DISADVANTAGES OF ONLINE RETAIL.

- 1) Website costs:- planning, designing, creating, hosting, securing and maintaining a professional e-commerce website isn't cheap, especially if you expect large and growing sales volumes.
- 2) Infrastructure costs:- even if you aren't paying the cost of customer-facing premises, you'll need to think about the costs of physical space for order fulfillment, warehousing goods, dealing with returns and staffing for these tasks.
- 3) Security and fraud:- the growth of online retail market has attracted the attention of sophisticated criminal elements. The reputation of your business could be fatally damaged if you don't invest in the latest security systems to protect your website and transaction process.
- 4) Legal issues:- getting to grips with e-commerce and the law can be a challenge and you'll need to be aware of, and plan to cope with, the additional customer rights which are attached online sales.

## What is internet?

The intranet is a network of computers linking many different types of computers all over the world.

- It is a very large Wide Area Network (WAN) connecting computers all over the world.
- It makes it possible for millions of users to connect to one another via telephone lines, cable lines and satellites.

## What is Network

A connection of two or more computers so that they could share resources.

- Connection between two or more computers, which allows them to share the same software and information.

## TYPES OF NETWORK

Local Area Network (LAN)

Wide Area Network (WAN)

Metropolitan Area Network (MAN)

### Local Area Network:-

It is a computer network that share a common communications in a limited area such as a home, school, or office building.

→ LANs are confined to a single building or group of buildings.

→ Usually, the server has applications and data storage that are shared in common by multiple computer users.

### Wide Area Network:-

A Wide area network is a telecommunication network that covers a broad area (any network that links across metropolitan, regional, or national boundaries).

### Metropolitan Area Network:-

It is a computer network that usually spans a city or a large campus.

MAN is optimized for a larger geographical area than a LAN, ranging from several blocks of buildings to entire cities.

## DESIGNING BUILDING AND LAUNCHING E-COMMERCE WEBSITE.

Phase-I Planning

Phase-II Technology Infrastructure.

Phase-III Website management.

Phase-IV Marketing and Sales

Phase-V Distribution

Phase-VI Maintenance

Phase-VII Feedback.

### What is E-commerce security

E-commerce security is the protection of e-commerce assets from unauthorized access, use, alteration, or destruction.

### Dimensions of e-commerce security

- a) Integrity:- ability to ensure that information being displayed on a website or transmitted/received over the internet has not been altered in any way by an unauthorized party.
- b) Non-repudiation:- ability to ensure that e-commerce participants do not deny (repudiate) online actions.
- c) Authenticity:- ability to identify the identity of a person or entity with whom you are dealing on the internet.
- d) Confidentiality:- ability to ensure that messages and data are available only to those authorized to view them.
- e) Privacy:- ability to control use of information a customer provides about himself to merchant.
- f) Availability:- ability to ensure that an e-commerce site continues to function as intended

### Threats in e-commerce.

- 1) Client threats - Trojan horse, cookies, virus.
- 2) Communication channel threat
- 3) Server threat.
- 4) Miscellaneous threats.

### ENCRYPTION:-

Encryption is the method by which information is converted into secret code that hides the information's true meaning.

The science of encrypting and decrypting information is called cryptography. In computing, unencrypted data is also known as plaintext, and encrypted data is called ciphertext.

