

## Mid Term

### I. 10 Out of 20.

1. E - Commerce is projected to reach 13-15% by: **2028**.
2. Consumers can shop 24/7, compare prices, and even make payments through **M-Commerce**.
3. The concept of e-commerce began with early online transactions using EDI and **Telecommunication Networks**.
4. A model where a business sells to a consumer through another business: **B2B2C**.
5. Brands selling directly to consumers, by passing traditional retailers is known as: **D2C model**.
6. E-Commerce stores use which technology to let consumers visualize products in real world environments: **AR**.
7. Which platform facilitates transactions between third-party sellers and consumers: **Marketplace Model**.
8. Under which model, one company sells goods in bulk to other businesses, which then resell or distribute them: **Wholesale Model**.
9. Online video and audio services, changing entertainment consumption patterns, is known as: **Streaming**.
10. Firewalls and intrusion Detection Systems help protect servers and databases from unauthorized access and **Cyberattacks**.
11. Malicious software that can infect the website or customers devices, leading to data theft or website outages is known as **Malware**.
12. PCI DSS compliance is to ensure secure **Payment Processing**.
13. Which plan is to be prepared in the event of a security breach: **Incident Response Plan**.
14. Which laws protect consumers against unfair practices, product authenticity: **Consumer Protection Laws**.
15. Which refers to the process of presenting bills electronically and enabling customers to pay those bills online: **EBPP**.
16. Processes like supply chain management, customer service, product delivery have been revolutionized by the **Internet**.
17. E-Commerce transactions through social media platforms: **Social Commerce**.
18. Mobile phones became the primary platform for e-commerce in the **2010s**.
19. In 1991, the launch of the World Wide Web in 1991 giving the public access to the **Internet**.
20. The increasing convenience and reach of online shopping are gradually shifting **Consumer Preferences**.

## **II. 2 Out of 3 from the following 5.**

### **1. What is e-commerce? Narrate transformative process of E-Commerce?**

A. Electronic commerce, better known as E-Commerce, refers to the commercial activities- such as online shopping and payment transaction- carried out using computers and the Internet. E-Commerce covers the global information economy, which includes electronic trading goods and services, electronic fund transfer, online procurement, direct marketing and electronic Billing.

#### **E-Commerce: The Revolution is Just Beginning**

E-Commerce has been a transformative force in the global economy. Over the last few decades, the way people shop, buy, and interact with businesses has drastically changed. It represents a revolution in how goods and services are traded, transcending borders and creating new opportunities for business and consumers alike. The revolution is still ongoing, with technological innovations, shifting consumer behaviours, and evolving business models continually reshaping the landscape.

Some key factors contributing to this ongoing revolution include:

- 1. Mobile Commerce(M-Commerce):** The rise of smartphones and mobile apps has made shopping on the go easier than ever. Consumers can shop 24/7, compare prices, and even make payments with a few taps on their devices.
- 2. Social Commerce:** Social media platforms have become integrated with e-commerce, allowing users to discover and purchase products directly through platforms like Instagram, Facebook, and TikTok.
- 3. Artificial Intelligence and Personalization:** E-Commerce platforms use AI to recommend products, predict consumer behaviour, and create tailored shopping experiences that drive customer loyalty.
- 4. Globalization:** E-Commerce has allowed businesses to reach international markets without the overhead of traditional brick-and-mortar stores, opening up global markets to small and medium-sized enterprises.

### **2. Elaborate the five Themes & Components of E-Commerce?**

E-Commerce is a vast field that encompasses various models and categories. Here's an organized breakdown of key themes and components:

#### **1. Business Models of E-Commerce:**

- **B2B(Business-to-Business):** Transactions between businesses. Ex: wholesale suppliers, enterprise software providers.
- **B2C(Business-to-Consumer):** Businesses selling directly to consumers. Ex: Amazon, Walmart.
- **C2C(Consumer-to-Consumer):** Individuals selling to other individuals, often facilitated by online platforms. Ex: eBay, Craigslist.
- **C2B(Consumer-to-Business):** Individuals offering products or services to businesses. Ex: freelance platforms like Upwork.

## **2. E-Commerce Platforms:**

- **Marketplaces:** Large platforms where multiple sellers can offer their products (e.g., Amazon, Etsy).
- **Direct-to-Consumer(D2C) Websites:** Brands selling directly to consumers, bypassing traditional retailers (e.g., Warby Parker, Glossier).
- **Subscription Services:** Businesses providing goods or services on a recurring basis (e.g., Netflix, Dollar Shave Club).

## **3. Payment Systems and Security:**

- E-Commerce platforms rely on **secure payment gateways** like Paypal, Stripe, or credit card systems to process transactions.
- The need for **Cybersecurity** has risen with the increase in online transactions, ensuring that consumer data and financial information are protected.

## **4. E-Commerce Trends and Innovations:**

- **Personalization:** AI and machine learning help deliver personalized experiences and product recommendations based on browsing history.
- **Omnichannel Shopping:** The integration of physical stores and online platforms, allowing consumers to shop seamlessly across channels.
- **AI and Chatbots:** These technologies enable 24/7 customer support and personalized interactions in real-time.
- **Augmented Reality(AR):** E-Commerce stores use AR to let consumers visualize products in real-world environments before making a purchase.

## **5. Challenges in E-Commerce:**

- **Logistics and Delivery:** As demand for fast delivery increases, e-commerce businesses must find solutions to optimize their supply chains.
- **Returns and Customer Service:** Managing returns efficiently and providing excellent customer service are critical for maintaining customer loyalty.
- **Global Market Considerations:** Navigating international laws, taxes, and logistics can be complicated when selling across borders.

The key takeaway is that e-commerce isn't just about buying and selling; it's about creating a seamless, personalized experience for customers while adapting to technological advancements and societal changes.

### **3. What is E-Commerce Payment Systems in detail including Electronic Billing Presentment and Payment?**

An E-Commerce payment system facilitates secure and efficient online payments, allowing customers to purchase goods and services directly on a website. Payment systems can include:

1. **Credit/Debit Card Payments:** The most common method of payment, involving customers using credit or debit cards via secure gateways like PayPal, Stripe or Square.
2. **Digital Wallets:** Services like PayPal, Apple Pay, and Google Wallet allow users to store payment information securely and make fast payments.
3. **Bank Transfers:** Direct transfers between bank accounts and businesses, commonly used in some regions or for high-ticket items.
4. **Cryptocurrency Payments:** Bitcoin, Ethereum, and other cryptocurrencies are becoming popular for e-commerce transactions, offering a decentralized and secure alternative to traditional payments.

#### **Electronic Billing Presentments and Payment(EBPP)**

**EBPP refers to the process of presenting bills electronically and enabling customers to pay those bills online.** It simplifies billing and payment processes for both businesses and customers. Key aspects include:

- **Electronic Bill Presentment:** Bills are delivered to customers in a digital format, often through email, a customer portal, or via mobile applications.
- **Online Payment Options:** Customers can pay their bills directly through integrated payments systems, such as credit cards, ACH transfers, or digital wallets.
- **Automated Payment Reminders:** EBPP systems can automatically send reminders to customers about upcoming payments to ensure timely payments.

The adoption of EBPP reduces paper usage, cuts costs, improves each flow, and provides convenience for customers.

By understanding these components, e-commerce businesses can build secure, efficient, and customer friendly. Online platforms that drive growth while maintaining trust and security.

## **4. Write down the Management Policies and Public laws for E-Commerce security and Compliance?**

### **Management Policies for E-Commerce Security:**

To maintain a secure e-commerce environment business should implement clear management policies that focus on data protection, secure transactions, and user privacy.

- **Access Control:** Restrict access to sensitive data and systems based on user roles, ensuring that only authorized individuals can access critical systems.
- **Regular Audits:** Regular security audits and vulnerability assessments help identify potential risks and gaps in the security framework.
- **Data Protection Policies:** Establish clear guidelines for how customer data is collected, stored, used, and shared, in compliance with privacy laws like GDPR.
- **Incident Response Plan:** Prepare a response plan in the event of a security breach, including how to contain the breach, notify affected customers, and prevent further damage.

### **Public Laws and Compliance in E-Commerce:**

E-Commerce businesses must comply with various laws and regulations that protect consumer rights, data privacy, and online transactions. These laws vary by country, but some common regulations include:

- **General Data Protection Regulation(GDPR):** A European Union regulation governing data protection and privacy for individuals within the EU.
- **California Consumer Privacy Act(CCPA):** A Privacy law that enhances privacy rights and consumer protection for residents of California.
- **Payment Card Industry Data Security Standard(PCI DSS):** A set of security standards designed to ensure that all companies that accept, process, store, or transmit credit card information maintain a secure environment.

**Consumer Protection Laws:** Protect consumers against unfair practices, ensure product authenticity, and safeguard rights related to returns, refunds, and warranties.

## **5. Describe the three E-Commerce Business Models?**

**E-Commerce Business Models:** E-Commerce business models refer to the structure and approach that a business uses to buy and sell goods or services online. These models help Businesses generate revenue and deliver value to customers while leveraging digital platforms.

The major e-commerce business model include:

## **1. Major Business to Consumer(B2C) Business Models:**

**Business to Consumer(B2C):** This is the most common e-commerce model where businesses sell directly to consumers. The key characteristic is that it focuses on offering products and services directly to individual customers.

- **Retailer Model:** A company sells goods directly to the consumer via an online store (e.g., Amazon, Walmart).
- **Subscription Services:** Businesses providing goods or services on a recurring basis(e.g., Netflix, Dollar Shave Club).
- **Marketplace Model:** A platform facilitates transactions between third-party sellers and consumers(e.g., eBay, Etsy).
- **On-Demand Model:** This allows consumers to purchase a product or service whenever it's needed(e.g., Uber, Lyft).
- **Direct Sales Model:** Companies sell their products or services directly to customers via online channels(e.g., Apple Store Online).

## **2. Major Business to Business(B2B) Business Models:**

**Business to Business(B2B):** This model involves the exchange of goods and services between businesses rather than between businesses and consumers. The B2B e-commerce sector is crucial for supply chain operations.

- **Wholesale Model:** One company sells goods in bulk to other businesses, which then resell or distribute them(e.g., Alibaba, Grainger).
- **Supplier Model:** Suppliers sell products or services directly to other businesses(e.g., intel selling chips to tech companies).
- **Distributor Model:** A company distributes products from manufacturers to other businesses, often with a focus on regional or niche markets(e.g., McKesson distributing medical supplies to healthcare providers).
- **Service Provider Model:** This model provides service to other businesses(e.g., Salesforce offering CRM software to other companies).

## **3. Business Models in Emerging E-Commerce Areas:**

With the rise of new technologies and changes in consumer behavior, emerging e-commerce business models are gaining traction:

- **Social Commerce:** E-Commerce transactions through social media platforms(e.g., Instagram shopping, Facebook Marketplace).
- **Mobile Commerce (M-Commerce):** E-Commerce activities conducted via smartphones and tablets, often including apps and mobile-optimized websites(e.g., Amazon mobile app).

- **Voice Commerce:** Using voice assistants like Alexa, Siri, and Google Assistant to make purchases or inquire about products.
- **Augmented Reality(AR) Commerce:** Online platforms use AR to let consumers visualize products in real-life environments (e.g., IKEA Place app).
- **Cryptocurrency and Blockchain Commerce:** E-Commerce using blockchain technology to ensure transparency and security in transaction, with cryptocurrencies used as a form of payment.

## **Case Study:** From Apple Orchard to Consumer via E-Commerce:

**Solution:** The Stages involved in this Chain of services:

Stage I: Production:

- Farmers cultivates Apples in his Garden
- Harvested, sorted and packed for sale

Stage II: Listing on E-Commerce Platform:

- Farmer registers on platforms like Bigbasket, Amazon Fresh
- Upload product details, price, quality, and quantity available.

Stage III: Digital Marketing and Visibility:

- E-Commerce platforms promote apples through banners, search ranking
- Customers browsing online see the product

Stage IV: Warehousing & Logistics:

- Apples may be collected at a cold storage facility to keep them fresh
- Apples are transported in cold-chain trucks to maintain quality

Stage V: Customers Supports & Returns:

- If apples are damaged spoiled, the customer can request a replacement refund
- Customer service ensures trust and repeat purchases.

So, out of this E-Commerce chain of services from field to customer, the outcome arises:

- The farmer gets a better price and a wider market reach
- Consumers enjoy fresh apples at the doorstep with convenience.