



# LOYOLA COLLEGE

Affiliated to Thiruvalluvar University  
Accredited by NAAC at B+ Grade (1<sup>st</sup> Cycle)  
Vettavalam – 606 754

**DEPARTMENT : B.SC (DS)**  
**CLASS : II YEAR**  
**SEMESTER : III (ODD SEMESTER)**  
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## SYLLABUS

**UNIT-1:** E-Commerce: E-Commerce Framework – E-Commerce and Media Convergence – The anatomy of E-commerce applications - E-Commerce Consumer Applications - E- Commerce Organization Applications.

### E – Notes

#### Two Mark Questions

##### **1. What is E-Commerce?**

E-Commerce (Electronic Commerce) refers to the buying and selling of goods and services or the transfer of funds and data over the Internet or other electronic networks.

##### **2. List any two examples of E-Commerce platforms.**

Examples:

1. Amazon
2. eBay

##### **3. What is Business-to-Consumer (B2C) E-Commerce?**

B2C E-Commerce refers to online transactions between businesses and individual consumers.

Example: Amazon, Walmart.

##### **4. Define Business-to-Business (B2B) E-Commerce.**

B2B E-Commerce involves transactions between two businesses.

Example: Alibaba, ThomasNet.

##### **5. What is an E-Commerce Framework?**

An E-Commerce framework is a collection of software tools and technologies that provide the foundation for building and managing an online store.

##### **6. Mention any two popular E-Commerce frameworks.**

1. Shopify
2. WooCommerce

**7. What is Media Convergence in E-Commerce?**

Media convergence in E-Commerce is the integration of various media formats like text, images, audio, and video to enhance the online shopping experience.

**8. Give two examples of Media Convergence in E-Commerce.**

1. Social media shopping on Instagram and Facebook.
2. Virtual try-on using Augmented Reality (AR).

**9. What is the role of Payment Gateways in E-Commerce?**

Payment Gateways securely process online payments between buyers and sellers in E-Commerce transactions.

Example: PayPal, Razorpay.

**10. State two benefits of E-Commerce.**

1. Convenience – Customers can shop anytime from anywhere.
2. Broader Market Reach – Businesses can reach global customers.

**Five Mark Questions****1. What is E-Commerce and explain any three example?**

E-commerce (Electronic Commerce) refers to the buying and selling of goods, services, or data through electronic networks, mainly the Internet.

It includes activities like online shopping, digital payments, and internet banking.

Examples:

1. Amazon
2. Flipkart,
3. eBay,
4. libaba.

**2. Explain any two types of E-Commerce models.**

1. Business-to-Consumer (B2C):
  - Businesses sell products directly to consumers.
  - *Example:* Amazon, Walmart.
2. Consumer-to-Consumer (C2C):
  - Consumers sell goods/services to other consumers through a third-party platform.

- *Example: eBay, OLX.*

**3. What are the benefits of E-Commerce?**

- Convenience: Customers can shop anytime, anywhere.
- Reduced Costs: Low operational costs compared to physical stores.
- Global Reach: Businesses can reach international markets.
- Faster Transactions: Quick payments and order processing.

**4. What are the challenges of E-Commerce?**

- Security Risks: Vulnerable to cyberattacks and data theft.
- Lack of Tangibility: Customers can't touch or test products.
- High Competition: Many online sellers in the same market.
- Technical Dependence: Needs stable technology and internet.

**5. Define E-Commerce Framework. Mention its types.**

An E-Commerce Framework is a set of software tools used to build and manage online stores.

Types:

1. SaaS (e.g., Shopify, BigCommerce)
2. Open Source (e.g., WooCommerce, Magento)
3. Headless Commerce
4. Mobile E-Commerce Frameworks

**6. What is Media Convergence in E-Commerce?**

Media convergence refers to integrating text, video, audio, and images in one platform to improve the shopping experience.

Examples:

- Instagram/Facebook shopping
- AR try-ons (virtual dressing)
- Personalized product videos and ads

Benefits: Increases engagement, sales, and customer satisfaction.

**7. Explain the working of E-Commerce.**

1. Website/App setup
2. Customer browsing
3. Add items to cart
4. Checkout & payment
5. Order confirmation
6. Order processing & shipping
7. Delivery & post-sale support

This flow ensures smooth online transactions between buyer and seller.

**8. What are the key components of an E-Commerce Application?**

1. Multimedia Content – Product images, videos.
2. Storage Servers – Store product and user data.
3. Information Delivery – Internet and network transport.
4. Consumer Devices – Computers, mobiles.
5. Security & Payment Systems – Protect transactions and data.

**9. Write short notes on E-Commerce Consumer Applications.**

E-commerce consumer apps help individuals shop online.

Examples:

- Retail Apps: Amazon, Walmart
- Food Apps: Swiggy, Uber Eats
- Subscription Apps: HelloFresh
- Resale Apps: OLX, Poshmark
- Payment Apps: PayPal, Google Pay

**10. List and explain any three E-Commerce Organization Applications.**

1. Online Store Platforms: Build/manage online shops (e.g., Shopify).
2. Payment Gateways: Process secure payments (e.g., Razorpay, PayPal).

3. Inventory Management: Track stock levels (e.g., Zoho Inventory).
4. CRM Systems: Manage customer data (e.g., Salesforce).

### **Ten Mark Questions**

#### **1: Explain the working process of E-commerce with neat steps.**

E-commerce, or electronic commerce, involves buying and selling goods and services over the internet. The working process of e-commerce follows a systematic flow to ensure smooth online transactions between the buyer and the seller.

Steps involved in the working of E-commerce:

1. Website/App Setup:  
Businesses create an online platform (website or app) to display their products or services with images, descriptions, and prices. This acts as the virtual store for customers.
2. Customer Browsing:  
Customers browse through the online catalog to find their desired products. Advanced search filters and recommendation systems help customers make choices easily.
3. Selection and Cart:  
Once products are chosen, they are added to the virtual shopping cart, allowing customers to review items before purchase.
4. Checkout Process:  
Customers proceed to checkout, where they provide shipping details and choose a payment method.
5. Payment Processing:  
The payment is processed securely using online payment gateways like PayPal, Stripe, or Razorpay. Encryption ensures safety of financial data.
6. Order Confirmation:  
After payment, an order confirmation email or SMS is sent to the customer containing purchase details and tracking information.
7. Order Fulfillment:  
The seller processes the order, packages the product, and hands it over to logistics partners for delivery.
8. Shipping and Delivery:  
The product is shipped and delivered to the customer's address within a specified time frame.

**9. Post-Sale Support:**

Post-purchase services include order tracking, returns, exchanges, and customer support.

**2: Discuss the different types of E-commerce with examples.**

E-commerce can be classified into various types based on the nature of transactions between buyers and sellers.

**1. Business-to-Consumer (B2C):**

This model involves transactions between businesses and individual consumers.

Examples: Amazon, Walmart, Zappos.

**2. Business-to-Business (B2B):**

It involves transactions between two businesses, such as manufacturers and wholesalers.

Examples: Alibaba, ThomasNet, Costco Wholesale.

**3. Consumer-to-Consumer (C2C):**

Transactions happen between individual consumers, usually through third-party platforms.

Examples: eBay, Craigslist, Facebook Marketplace.

**4. Consumer-to-Business (C2B):**

In this model, individuals sell products or services to companies.

Examples: Shutterstock (photos), Upwork (freelance work).

**5. Business-to-Government (B2G):**

Businesses provide goods or services to government entities.

Examples: Public sector software providers, defense contractors.

**6. Government-to-Consumer (G2C):**

Governments provide services directly to citizens through online portals.

Examples: Online tax filing, passport renewal services.

**3: Explain the major benefits and challenges of E-commerce.**

Benefits of E-commerce:

1. Convenience: Customers can shop 24/7 from anywhere with an internet connection.
2. Reduced Costs: Businesses save on rent, utilities, and staff expenses compared to physical stores.
3. Global Reach: Products can reach international customers without geographical limits.

4. Speed and Efficiency: Online transactions are faster, reducing waiting time.

Challenges of E-commerce:

1. Security Risks: Cyber-attacks, hacking, and data breaches are common threats.
2. Lack of Tangibility: Customers cannot touch or test products before purchase.
3. High Competition: Online markets are crowded, making it difficult to stand out.
4. Technology Dependence: System errors or internet failures can disrupt operations.

**4: What is an E-commerce framework? Explain its types with examples.**

An E-commerce framework is a set of tools and technologies used to create and manage online stores. It provides pre-built functions for inventory management, payments, and customer service.

Types of E-commerce Frameworks:

1. SaaS (Software as a Service):  
Cloud-based, ready-to-use solutions requiring no technical knowledge.  
Examples: Shopify, BigCommerce.
2. Open Source Frameworks:  
Free and customizable but need technical skills to maintain.  
Examples: WooCommerce, Magento.
3. Headless Frameworks:  
Separate front-end and back-end for flexibility in design and performance.  
Example: BigCommerce (headless mode).
4. Mobile E-commerce Frameworks:  
Designed for mobile shopping experiences via smartphones or tablets.

Examples: Shopify, WooCommerce, Magento, PrestaShop.

**5: Explain the concept of Media Convergence in E-commerce with examples.**

Media convergence in e-commerce refers to the blending of various media forms—text, video, images, and audio—on one platform to create an engaging shopping experience.

Examples of Media Convergence:

1. Social Media Shopping: Instagram and Facebook allow direct in-app purchases.
2. Interactive Product Demonstrations: Videos and AR tools show products realistically.
3. Personalized Content: Websites suggest products based on browsing history.

4. Mobile Commerce (m-commerce): Mobile apps make shopping easy and accessible.
5. Virtual Try-on Experiences: AR tools let users test clothes or makeup virtually.

**Benefits:**

- Increased reach and engagement.
- Enhanced brand visibility.
- Improved customer satisfaction.
- Higher sales and conversions.