E-Commerce PYQ 2020

Q1. Discuss how technology is supporting all categories of e-commerce. Also, address how various e-commerce categories have supported buyers and sellers while transacting online.

Ans1 Technology has played a significant role in the growth and development of e-commerce. It has made it possible for businesses to conduct transactions online and reach a wider customer base. The various categories of e-commerce, such as B2B, B2C, C2C, and mobile commerce, have all been supported by technology in different ways.

B2B (Business-to-Business) e-commerce involves transactions between businesses. Technology has made it easier for businesses to find and connect with potential partners and suppliers online. Platforms like Alibaba, Amazon Business, and ThomasNet allow businesses to search for suppliers, compare prices, and place orders online. Electronic Data Interchange (EDI) and Enterprise Resource Planning (ERP) systems have also made it easier for businesses to exchange information and automate their supply chain processes.

B2C (Business-to-Consumer) e-commerce involves transactions between businesses and individual consumers. Online marketplaces, such as Amazon, eBay, and Etsy, have made it easier for consumers to find and purchase products online. These platforms provide a user-friendly interface, a wide selection of products, and competitive prices. Technology has also enabled businesses to provide personalized shopping experiences, targeted advertising, and real-time customer support.

C2C (Consumer-to-Consumer) e-commerce involves transactions between individual consumers. Platforms like eBay, Craigslist, and Facebook Marketplace allow individuals to sell products to one another online. Technology has made it possible for individuals to connect with potential buyers or sellers, negotiate prices, and complete transactions securely. Online payment systems like PayPal and Venmo have made it easier for individuals to send and receive payments online.

Mobile commerce or m-commerce involves transactions conducted through mobile devices. Technology has enabled businesses to create mobile-friendly websites and mobile apps that provide a seamless shopping experience for consumers. Mobile payment systems like Apple Pay and Google Wallet have made it easier for consumers to make purchases using their mobile devices.

In addition to supporting different categories of e-commerce, technology has also provided various benefits to both buyers and sellers. Buyers can enjoy the convenience of shopping from anywhere, at any time, and from any device. They can easily compare prices, find product information, read reviews, and make purchases with just a few clicks. Sellers can reach a wider audience, reduce overhead costs, and automate their business processes, resulting in increased efficiency and profitability.

In conclusion, technology has revolutionized the way businesses conduct e-commerce, and it continues to support the growth and development of this industry. The various categories of e-commerce have all benefited from technological advancements, and buyers and sellers alike have enjoyed the benefits of online transactions.

Q2. An engineer is told by its employer to build a new internet protocol. Being a subject matter expert, you need to explain him the architecture of internet and how the internet works internally. Elaborate.

Ans2 The internet is a global network of computers that enables communication and information sharing among users around the world. It works on a client-server model, where clients request information or resources from servers, which then respond by providing the requested information.

At its core, the internet is built on a protocol called the Internet Protocol (IP), which allows for the transfer of information packets between computers. IP is responsible for addressing, routing, and fragmentation of packets, which enables the internet to handle large amounts of data traffic.

The internet is also comprised of numerous interconnected networks, including local area networks (LANs), wide area networks (WANs), and metropolitan area networks (MANs). These networks are connected by high-speed data links, such as fiber optic cables, satellite links, and wireless connections.

One of the most critical components of the internet is the Domain Name System (DNS), which translates domain names into IP addresses. When a user types a domain name into their web browser, the DNS server looks up the IP address associated with that domain name and forwards the request to the appropriate web server.

In addition to IP and DNS, other key protocols that enable the internet to function include Transmission Control Protocol (TCP), which ensures reliable delivery of data packets, and Hypertext Transfer Protocol (HTTP), which is used for accessing and transmitting web pages.

As an engineer tasked with building a new internet protocol, it is important to understand how the existing protocols and infrastructure of the internet work, as well as the various technologies and standards that support it. This includes a deep understanding of networking protocols, security standards, and emerging technologies like 5G and the Internet of Things (IoT). By leveraging this knowledge, you can design a new protocol that is efficient, secure, and scalable to meet the needs of modern users and devices.

Q3. It is known that timely and honestly feedback plays an important role in making the website more effective and attractive. As an e- commerce retail store owner, how will you make sure the users to give you honest and critical feedback?

Ans3 As an e-commerce retail store owner, there are several ways to ensure that users provide honest and critical feedback:

1. Make it easy for users to leave feedback: Provide multiple channels for users to leave feedback, such as a feedback form on the website, an email address dedicated to feedback, or a chatbot that can take feedback.

2. Incentivise users: Offer users a discount or other incentive for leaving feedback. This can encourage more people to provide feedback and make it more likely that they will be honest.

3. Ask specific questions: Instead of asking general questions like "How was your experience?", ask specific questions about different aspects of the website, such as navigation, search functionality, or checkout process. This can help users provide more detailed and useful feedback.

4. Respond to feedback: Let users know that their feedback is being taken seriously by responding to it promptly and addressing any issues that are raised. This can encourage users to continue providing feedback in the future.

5. Monitor social media: Keep an eye on social media channels to see what people are saying about the website. This can provide valuable feedback that may not be captured through other channels.

Overall, it's important to create a culture of feedback within the organization and show users that their feedback is valued and taken seriously. By doing so, you can improve the website and build trust with users.

Q4. What are the main security issues of e-commerce? Explain how Digital Signatures are able to ensure the authentication and integrity of a business transaction.

Ans4 The main security issues of e-commerce include:

1. Authentication: The process of verifying the identity of the user or the entity with whom the transaction is being made.

2. Confidentiality: The protection of sensitive data from unauthorized access or disclosure.

3. Integrity: The protection of data from unauthorized modification or alteration.

4. Non-repudiation: The prevention of one party from denying the authenticity or integrity of a transaction.

Digital signatures are able to ensure the authentication and integrity of a business transaction through a process that involves the use of a private key and a public key. The private key is used by the signer to generate a digital signature that is unique to the transaction. The public key is used by the recipient to verify the authenticity and integrity of the digital signature.

When a user makes a transaction on an e-commerce website, the website generates a digital signature using the user's private key. This digital signature is then sent to the recipient along with the transaction data. The recipient can then verify the authenticity and integrity of the digital signature using the user's public key.

Digital signatures are able to ensure the authentication and integrity of a business transaction by providing a way to verify that the transaction was made by the user and that the transaction data has not been altered. This helps to prevent unauthorized access or modification of sensitive data and protects the integrity of the transaction.

Q5. Though the usage of online payments is increasing, the risk of using credit cards and online payment is also increasing. To protect the rights of the parties involved in e-commerce business, government has made many rules, regulations and laws. Explain the relevant Acts involved.

Ans5 There are several Acts that are relevant to e-commerce and online payments in India, including:

1. Information Technology Act, 2000: This Act provides legal recognition to electronic transactions and defines cyber crimes and their penalties. It also lays down the framework for electronic contracts, digital signatures, and electronic records.

2. Payment and Settlement Systems Act, 2007: This Act regulates payment systems in India and aims to ensure the efficiency, security, and transparency of payment systems. It covers electronic fund transfers, credit card transactions, and other payment systems.

3. Reserve Bank of India (RBI) Guidelines: The RBI has issued guidelines on electronic payments and online transactions, which cover topics such as security, authentication, and fraud prevention. These guidelines are mandatory for banks and other financial institutions.

4. Consumer Protection Act, 2019: This Act protects the rights of consumers and regulates consumer disputes. It covers online transactions and provides remedies for consumers in case of fraud or unfair trade practices.

5. Goods and Services Tax (GST) Act, 2017: This Act regulates the collection and payment of GST on online transactions. It requires e-commerce operators to register for GST and pay the appropriate taxes.

In addition to these Acts, there are also various other laws and regulations that may be relevant to e-commerce and online payments, such as the Indian Contract Act, the Indian Penal Code, and the Copyright Act. It is important for e-commerce businesses to understand and comply with these laws to avoid legal issues and protect the rights of all parties involved.

Q6. What is electronic governance? Describe the composition, qualification and powers of the Cyber Appellate Tribunal.

Ans6 Electronic governance, also known as e-governance, refers to the use of electronic technology in the delivery of government services, information, and communication to citizens, businesses, and other government entities. It involves the use of digital communication technologies such as the internet, mobile devices, and other digital channels to improve the efficiency, effectiveness, and transparency of government processes.

The Cyber Appellate Tribunal (CAT) is a quasi-judicial body established under the Information Technology (IT) Act, 2000 in India. It has the power to hear appeals against orders passed by the Adjudicating Officers under the IT Act. The CAT consists of a Chairperson and not more than two Members, who are appointed by the central government.

The Chairperson must be a person who is or has been a Judge of a High Court and the Members must have expertise in the field of IT, law, or management. The term of the Chairperson and Members is five years or until they attain the age of 65 years, whichever is earlier.

The CAT has the power to hear appeals against orders passed by the Adjudicating Officer under the IT Act. It has the same powers as a civil court and can summon and enforce attendance of witnesses, receive evidence on affidavits, and conduct inquiries. The CAT has the power to pass orders as it deems fit, including interim orders, and its decisions are final and binding.

In addition to its appellate jurisdiction, the CAT can also exercise other powers conferred upon it under the IT Act, such as the power to review any order passed by it or the Adjudicating Officer, the power to award costs, and the power to regulate its own procedure.