1) Define the terms *e-business* and *e-commerce* and explain the difference. What is the key factor in determining if a transaction is "commerce"?

Answer: E-business refers primarily to digitally enabled transactions within a firm, involving information systems under the control of the firm. E-business does not include commercial transactions in which an exchange of value across organizational boundaries takes place. E-commerce, on the other hand, is a revenue-generating operation. The key factor in determining if a transaction is commerce, therefore, is "exchange of value." In order to be e-commerce, a transaction must include the direct production of revenue.

2) Identify the eight unique features of e-commerce technology and explain how these features set e-commerce apart from more traditional ways of conducting commercial transactions.

Answer: The eight unique features of e-commerce technology are ubiquity, global reach, universal standards, richness, interactivity, information density, personalization/customization, and social technology. The fact that e-commerce is available nearly everywhere, at any time, (ubiquity) extends the marketplace beyond traditional boundaries and removes it from a temporal and geographic location. A marketspace is created in which shopping can take place anywhere, enhancing consumer convenience and reducing shopping costs, whereas in traditional commerce the marketplace is a physical place you must visit in order to transact. The global reach of e-commerce means that commerce is enabled across national and cultural boundaries as never before, with potentially billions of consumers and millions of businesses worldwide included in the marketspace. Traditional commerce, by contrast, is local or regional involving local merchants or national merchants with local outlets. Universal standards (one set of technical media standards) also allow for the seamless enablement of global commerce. In contrast, most traditional commerce technologies differ from one nation to the next. In traditional markets, national sales forces and small retail stores can provide a complex and content-rich message. However, there is generally a trade-off between the richness of the message and the number of consumers who can be reached with the marketing message. In e-commerce the trade-off is no longer necessary. An information rich environment is extended globally. Unlike any other commercial technology of the twentieth century, except perhaps the telephone, e-commerce technologies are interactive, allowing for two-way communication between the seller and the consumer. E-commerce technologies reduce information collection, storage, processing, and communication costs, thereby greatly increasing the prevalence, accuracy, and timeliness of information. This information density (information that is more plentiful, cheaper, and of higher quality) sets e-commerce apart from all other traditional methods of conducting transactions. E-commerce technologies also permit the personalization and customization of marketing messages on a level that was impossible with previous commerce technologies. Marketing messages can be targeted to specific individuals based on their interests and past purchasing behavior, and the product or service can be altered to suit a customer's preferences and prior behavior. Social technology allows users to easily generate and share content and permits a many-to-many model of mass communications that is different from previous technologies. This supports the creation of new business models and products that support social network services.

3) Has e-commerce changed the marketing of goods? If so, how?
Answer: E-commerce has greatly changed the marketing of goods. Before e-commerce was developed, the marketing and sale of goods was a mass-marketing and sales force-driven process. Marketers viewed consumers as passive targets of advertising campaigns. E-commerce has brought many new possibilities for marketing. The Internet and Web can deliver, to an audience of millions, rich marketing messages with text, video, and audio in a way not possible with traditional commerce technologies such as radio, television, or magazines. Merchants can target their marketing messages to specific individuals by adjusting the message to a person's name, interests, and past purchases. In addition, much information about the consumer can be gathered from the Web site the consumer visits. With the increase in information density, a great deal of information about the consumer's past purchases and behavior can be stored and used by online merchants. The result is a level of personalization and customization unthinkable with existing commerce technologies.

4) What is a first mover? Why was being a first mover considered to be important during the early years of e-commerce?
Answer: First movers are firms who are first to market in a particular area and who move quickly to gather market share. First movers hoped to establish a large customer base quickly, build brand name recognition early, and inhibit competitors by building in switching costs for their customers through proprietary interface designs and features. The thinking was that once customers became accustomed to using a company's unique Web interface and feature set, they could not easily be switched to competitors. In the best case, the entrepreneurial firm would invent proprietary technologies and techniques that almost everyone adopted, creating a network effect, which occurs where all participants receive value from the fact that everyone else uses the same tool or product.

5) List and briefly explain the main types of e-commerce.
Answer: The main types of e-commerce are Business-to-Consumer (B2C), in which online businesses attempt to reach individual consumers; Business-to-Business (B2B), in which businesses focus on selling to other businesses; Consumer-to-Consumer (C2C), which provides a market in which consumers can sell goods to each other; mobile e-commerce (m-commerce), which refers to the use of wireless digital devices to enable Web transactions; social e-commerce, which is commerce enabled by social networks and online social relationships; and local e-commerce, which is e-commerce that is focused on engaging the customer based on his or her geographical location.

6) Describe the visions and forces during the early days of e-commerce in terms of what the various interest groups hoped for: the computer science and information technology people; the economists; and the entrepreneurs, venture capitalists and marketers. Explain whether what each group envisioned came to fruition and why or why not.
Answer: The computer scientists and information technologists' vision was of a universal communications and computing environment that everyone could access with inexpensive computers. Their interest was in creating a vast worldwide information collection from libraries, universities, governments, and scientific institutions that was ungoverned by any nation and free to all. They believed that the Internet, and by extension, the e-commerce that operated within the infrastructure, should be self-governed and self-regulated.

The economists envisioned a near-perfect competitive market where price, cost, and quality information are equally distributed. The marketspace would include a nearly infinite number of suppliers with equal access to hundreds of millions of customers, but where those consumers in turn would have access to all relevant market information—a hypercompetitive market. Market middlemen would disappear, resulting in lowered costs to consumers. This intensely competitive, disintermediated environment with lowered transaction costs would eliminate product brands as well as the possibility of monopoly profits based on brands, geography, or special access factors. Unfair competitive advantages and the ability to reap returns on capital that far extended a fair market rate of return would be eliminated. Their vision was called friction-free commerce.

The entrepreneurs, venture capitalists, and marketers in turn saw e-commerce as an opportunity to earn great returns on invested capital. They saw the e-commerce marketspace and technologies as a powerful method of increasing their ability to even more precisely segment the market into groups with different price sensitivities. They believed that huge profits could be garnered by firms that quickly achieved high market visibility and that these successful first movers would become the new intermediaries of e-commerce, displacing the traditional retail merchants and content suppliers.

The computer scientists' vision of an ungoverned Internet has not come to fruition as governments have increasingly sought to regulate and control the technology to ensure that positive social benefits result. The economists' vision has also for the most part not materialized for a variety of reasons. Consumers have proven to be less price sensitive than expected and the importance of brand names to consumers' perceptions of quality and service has been extended rather than decreased or eliminated. Entrepreneurs have discovered new methods for differentiating products and services. New information asymmetries are continually being introduced by marketers. Disintermediation has also not occurred as new middlemen emerged. The visions of the entrepreneurs, venture capitalists, and marketers have also largely not come to fruition as the first movers from the early years of e-commerce only rarely succeeded. The fast follower large traditional firms with the resources needed to develop mature markets are displacing most of the venture capitalist backed entrepreneurs.