

Holiday Homework
Class XI
Subject –Informatics Practices

Case Study Questions
Chapter: Emerging Trends

Case Study 1: Smart Home System

Riya has installed a smart home system where devices are connected via internet.

Questions:

1. Identify the technology used in this system.
2. Explain how devices communicate in this setup.
3. What is the role of sensors?
4. Mention two advantages.
5. State possible risks.

Case Study 2: Online Shopping Platform

An online platform uses AI and cloud computing.

Questions:

1. Identify two technologies used.
2. How does AI help in recommendations?
3. What is cloud computing?
4. State two benefits of cloud storage.
5. Mention privacy concerns.

Case Study 3: Digital Payments System

A shopkeeper uses UPI and mobile wallets.

Questions:

1. Identify the emerging trend.
2. Role of mobile apps in payments.
3. Two advantages.
4. Risks involved.
5. Security measures.

Case Study 4: Healthcare Monitoring

Wearable devices monitor patient health.

Questions:

1. Identify the technology.
2. Role of IoT in healthcare.
3. Benefits of real-time data.
4. Two advantages.
5. Challenges faced.

Case Study 5: Autonomous Vehicles

Self-driving cars use AI and sensors.

Questions:

1. Technologies used.
2. Role of AI.
3. Importance of sensors.
4. Benefits.
5. Ethical concerns.

Case Study 6: Cloud-Based Education

Students use online platforms for learning.

Questions:

1. Identify technology.
2. Explain cloud computing.
3. Two advantages.
4. Limitations.
5. Role of internet.

Case Study 7: Social Media Analytics

Companies analyze user data.

Questions:

1. Technology used.
2. What is Big Data?
3. Benefits for business.
4. Privacy concerns.
5. Protection measures.

Case Study 8: Chatbot Support

Websites use chatbots for queries.

Questions:

1. Technology used.
 2. Benefits of chatbots.
 3. Limitations.
 4. Human vs chatbot.
 5. When is human support needed?
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Case Study 1: School Office Work

A school office uses computers for student records, fee management, and report generation.

Questions:

1. Identify the basic components of a computer system involved here.
2. Explain the role of input and output devices.
3. What is the function of CPU in this scenario?
4. Differentiate between hardware and software with examples.
5. Name two types of software used in school offices.

Case Study 2: Banking System

A bank uses computers for transactions, data storage, and ATM services.

Questions:

1. What type of computer system is used in banks?
2. Explain the importance of storage devices in this case.
3. What is the role of operating system?
4. Differentiate between primary and secondary memory.
5. Give examples of input and output devices used.

Case Study 3: Online Learning

Students attend classes using laptops and internet-based platforms.

Questions:

1. Identify the components of a computer system in this setup.
2. What is the role of software in online learning?
3. Explain the importance of internet connectivity.
4. What are input and output devices used here?
5. What is the role of memory in running applications?

Case Study 4: Retail Billing System

A supermarket uses computers for billing and inventory management.

Questions:

1. Identify the type of computer used.
2. Explain the IPO cycle in this context.
3. What hardware components are required?
4. What software is used in billing?
5. What are advantages of computerized billing?

Case Study 5: Personal Computer Usage

A student uses a personal computer for assignments, games, and browsing.

Questions:

1. What are the main components of a computer system?
2. Differentiate between RAM and ROM.
3. What is the role of CPU?
4. Name types of storage devices.
5. What is system software?