



Chapter: 1 - Fundamentals of Computer and Multimedia

One Mark Questions:

ONE LINE ANSWER QUESTIONS

1. What is the full form of COMPUTER?

Ans: Common Operating Machine Purposely Used for Technological and Educational Research

2. Give five pillars of computer system.

Ans: Hardware, Software, Data, Procedures, People

3. Give Full form of CPU.

Ans: Central Processing Unit

4. What is the meaning of BIOS?

Ans: Basic Input Output System

5. Give one advantage of computer.

Ans: High speed and accuracy

FILL IN THE BLANKS

1. Keyboard is a/an **input** device. (input/output)

2. Father of computer is **Charles Babbage**. (Henry Fayol/ Charles Babbage)

3. HDD stands for **Hard Disk Drive**. (Hard Disk Drive/Heavy Disk Drive)

4. Webcam is a **multimedia** device. (multimedia/software)

5. **Photoshop** is a multimedia software. (Printer/Photoshop)

TRUE/FALSE (T/F) STATEMENTS

1. Memory is a storage device. – **True**

2. UPS means uninterrupted power supply. – **True**

3. CPU means central processing unit. – **True**

4. Headphone and webcam are multimedia devices. – **True**

5. Multimedia is not useful in film Industry. – **False**

MULTIPLE CHOICE QUESTIONS

1. First Generation computers used

(a) Vacuum Tubes (b) Transistors (c) Integrated chips (d) Microprocessors

2. Third generation computer was in the years

(a) 1959-1965 (b) 1946-1959 (c) 1965-1971 (d) 1980 onwards

3. Multimedia comprises of

(a) Audio (b) Video (c) Audio and video (d) None of the above

4. Multimedia has features like

(a) Text (b) Video (c) Sound (d) All of these

5. _____ are primarily used to illustrate or demonstrate an idea or a concept.

(a) Graphic (b) Video (c) Animation (d) Multimedia

Ans Key: 1. (a) Vacuum Tubes 2. (c) 1965-1971 3. (c) Audio and video 4. (d) All of these

5. (d) Multimedia

Two Marks Questions:

Q. 1. Define computer.

Ans. “Computer is a machine that performs tasks, such as calculations or electronic communication, under the control of a set of instructions called a program” – Microsoft Encarta Encyclopaedia 2005

Programs usually reside within the computer and are retrieved and processed by the computer’s electronics. The program results are stored or routed to output devices, such as video display monitors or printers. Computer performs a wide variety of activities reliably, accurately, and quickly.

Q. 2. What do you mean by output devices?

Ans. Output devices display information or data. Common output devices are monitors and printers. The computer sends the output to the monitor which we can see on the screen. If we need a copy of the output, then we can take a printout thereof.

Q. 3. What are the important characteristics of computer?

Ans. 1. **Accuracy:** If the input or instructions given to computer is correct, there is no scope of errors and mistakes in the tasks performed by computer.

2. Fast Speed: The computers can perform great tasks within no time. It can process the data and information in the blink of an eye which otherwise may take months together.

3. Economical: Use of computers saves time, energy and money. More amount of work can be done in lesser time and at lesser cost.

Q. 4. What is Multimedia?

Ans. Multimedia as the name suggests, is a combination of various media for the computers. Multimedia is an integration of sound, animation, images, video etc. along with computing technology. Graphics and pictures/movies can be viewed on the computer. Digitized audio is used in multimedia. Sound recording is possible by using sound card in your computer. The digitized sound gets amplified by sound card.

Q. 5. What are different multimedia devices?

Ans. Different multimedia devices are enlisted as under:

1. CD ROM	5. Digital/Web Camera
2. Sound Card	6. Microphone
3. Video Card	7. Scanner
4. Speaker	8. Head Set

Four Marks Questions:

Q. 1. What is meant by Computer? Write any three features of computers.

Ans: “Computer is a machine that performs tasks, such as calculations or electronic communication, under the control of a set of instructions called a program” – Microsoft Encarta Encyclopaedia 2005

1. Accuracy: If the input or instructions given to computer is correct, there is no scope of errors and mistakes in the tasks performed by computer.

2. Fast Speed: One of the prominent characteristics of computer is its fast speed in carrying out various operations. The computers can perform great tasks within no time. It can process the data and information in the blink of an eye which otherwise may take months together. However, the speed of computer depends on the type of processor, RAM etc.

3. Diligence: When human beings do a job again and again, they get fed up due to monotony and lose speed and concentration. But computers have absolute diligence in working. It can work tirelessly for hours together with the same speed and accuracy.

Q. 2. Explain any four limitations of computers.

Ans: Limitations of Computer

Despite numerous benefits, computer has some limitations. Some of such limitations are discussed as under:

1. No Intelligence: Although computers are faster, more diligent, accurate and versatile than human beings, it cannot replace them. Unlike human beings, computers do not have any intelligence. Its performance depends on the instruction given to it. It cannot carry any task at its own.

2. Helpless in Decision Making: Computer cannot make any decisions at its own nor can it render any help to solve a problem at its own. For instance, one plays chess at computer, the computer can take only those steps which have been entered by the programmer. It cannot make any move at its own.

3. Emotionless: Computers are emotionless. They do not have emotions, likes & dislikes feelings. They are simply machines which work as per the instructions given to them incessantly for hours together without getting tired. It is impartial to its users. It does not make any difference between sad and happy messages.

4. Curtail Human Capabilities: Although computers are great help to human beings in their every activity but

overdependence on computer has mitigated number of capabilities of human beings. It is commonly felt that we people have become so dependent on calculators that we cannot make even very simple mathematical operation without calculators. Sometimes, people find it difficult to instantly speak out even those telephone numbers which they use every now and then as they have got the habit of using them by retrieving from storage.

Chapter: 2

Fundamentals of Internet and Working with Internet

One Mark Questions:

ONE LINE / ONE WORD QUESTIONS

1. What is the internet?
Ans: A global network of interconnected computers.
2. Write any one function of internet.
Ans: Communication (e.g., email, chatting).

3. Write any one major use of internet.
Ans: Accessing information.
4. Write any one requirement to access the internet.
Ans: Internet connection.
5. Name any one key component of internet.
Ans: Router.

FILL IN THE BLANKS

1. The Internet is a global network of **computers**. (Computers/ Telephone)
2. The Internet allows people to **connect** and share information. (connect/see)
3. The Internet works through a system of **interconnected** networks. (interconnected/independent)
4. Data is transmitted in **packets** across the network. (packets/pipes)
5. The Internet is used for **communication**. (communication/time pass)

TRUE/FALSE STATEMENTS

1. The Internet is a network of networks that connects millions of private, public, academic, business, and government networks. Ans: **True**
2. The World Wide Web (WWW) is the same as the Internet. Ans: **False**
3. To access the Internet, a user does not need an Internet Service Provider (ISP). Ans: **False**
4. The primary function of a router is to connect different networks together and direct data packets between them. Ans: **True**
5. IPv4 is the only version of Internet Protocol used today. Ans: **False** (IPv6 is also used)

MULTIPLE CHOICE QUESTIONS

1. **What is the Internet?**
 - (a) A private network for companies
 - (b) A global network connecting millions of private, public, academic, business, and government networks
 - (c) A software application
 - (d) A hardware device
2. **Which of the following is a fundamental characteristic of the Internet?**
 - (a) Centralized control
 - (b) Global reach
 - (c) Limited accessibility
 - (d) Manual operation
3. **Which protocol is primarily responsible for the transfer of web pages?**
 - (a) FTP
 - (b) HTTP
 - (c) SMTP
 - (d) SNMP
4. **What is an IP address?**
 - (a) Internet Phone number
 - (b) A unique identifier for each device connected to the Internet
 - (c) Internet Password
 - (d) Internet Program
5. **Which of the following is a common use of the Internet?**
 - (a) Sending emails
 - (b) Browsing websites
 - (c) Online shopping
 - (d) All of the above

Answer Key:

1. (b) 2. (b) 3. (b) 4. (b) 5. (d)

Two Marks Questions:

Q. 1. What is Internet?

Ans: Internet is a global network of networks, which links different types of networks (LAN, WAN) covering millions of systems all over the world. Internet is helpful to each and every one in some or many ways. Whether it is a business house or a small company, an institution or a hospital, a doctor or an engineer, a student or a house wife, it serves the need of every one. People rely on the internet for their education, trade, socialization and entertainment, among many other important aspects of human life. With the internet, it is possible to access almost any information, communicate with anyone else in the world, and do much more.

Q. 2. What do you understand by E-mail?

Ans: E-mail or Electronic mail is one of the most widely used services of the Internet. E-mail service allows a user to send messages over the internet to another user in any part of the world. With E-mail, sending and receiving messages has become an easy task. E-mail is useful for communication, marketing, promotion, and follow-up. E-mail is a tool that delivers messages instantaneously and is accessible from nearly anywhere around the world. E-mail consists

of text, images, documents, links and other attachments useful for communication.

Q. 3. What do you mean by 'Cc' and 'Bcc' in e-mail?

Ans: **Cc** stands for "Carbon Copy" and **Bcc** means "Blind Carbon Copy". Both are used to send copies of an email to additional recipients:

- **Cc:** Recipients in the Cc field receive a copy of the email, and their addresses are visible to all other recipients.
- **Bcc:** Recipients in the Bcc field also receive a copy, but their addresses are hidden from all other recipients, including those in the **To** and **Cc** fields.

Q. 4. What are the hardware requirements to run internet?

Ans: Following are the hardware requirements to run or use internet on a computer system:

- 1) A multimedia ready computer system having 32 MB RAM or more, 20 GB Hard disk or more.
- 2) Network Interface Card (NIC)
- 3) Network Cables and Connectors
- 4) Modem
- 5) Router
- 6) Bridge
- 7) Gateway
- 8) Repeater

Q. 5. What is WWW?

Ans: WWW (World Wide Web) or Web is a widely used service on the internet. It is a collection of different websites you can access through the Internet. Basically, WWW is a collection of millions of web pages stored in thousands of computers all over the world. It is a safe house for storing information on the internet.

Four Marks Questions:

Q. 1. Write any four advantages of E-mail.

Ans: The advantages of E-mail are:

- 1) Messages can be sent anywhere around the world instantly. Pictures, Audio, Video or other files can be sent.
- 2) Transmission usually costs nothing, or at the most, very little.
- 3) Sending to a group can be done in one step.
- 4) You can access your e-mail anywhere at any time. You can access it from any computer or mobile device that has an internet connection.

Q. 2. What are the advantages of Internet?

Ans: Internet is helpful to each and every one in some or many ways. Whether it is a business house or a small company, an institution or a hospital, a doctor or an engineer, a student or a house wife, it serves the need of every one.

Some of the major benefits of Internet are:

- 1) Internet is used for sending and receiving messages. E-mail is an online correspondence system. With e-mail, you can send and receive instant electronic messages anywhere around the world.
- 2) Any kind of information on any topic under the sun is available on the internet. The '*search engines*' on the internet can help you to find data on any subject that you need.
- 3) There are many online stores and sites that can be used to look for products as well as buy them using your debit card/credit card. You do not need to leave your house and can do all your shopping from the convenience of your home.
- 4) There are many '*chat rooms*' on the web that can be accessed to meet new people, make new friends, as well as to stay in touch with old friends.

Q. 3. What do you mean by 'Search Engine'? Comment.

Ans: The internet is a virtual treasure of information. Any kind of information on any topic under the sun is available on the internet. The '*search engines*' on the internet can help you to find data or information on any subject that you need. You can search images, text, animation, movies, songs and many more. A *search engine* is a software tool or a website that allows people to search information on the World Wide Web. The main purpose of *search engine* is to locate, sort, store, and rank the huge amount of valuable information on the web.

When you enter a *keyword* or *key phrase* into the search engine, the search engine will look through the billions of web pages to help you find the ones that you are looking for. Search engine returns the

results in the form of websites, images, videos or other online data. The list of content returned via a search engine to a user is known as a **Search Engine Results Page (SERP)**.

Chapter: 3

Concept and Scope of Information Technology

One Mark Questions:

ONE LINE / ONE WORD QUESTIONS

1. Define Information Technology.
Ans: Use of computers and telecommunications to store, retrieve, and transmit data.
2. What are Primary components of information technology?
Ans: Hardware, Software, Data, People, Processes.
3. What is the use of information technology (IT) in Banks?
Ans: Online banking, ATMs, fund transfers.
4. What is the use of IT in Education?
Ans: E-learning, smart classes, online examinations.
5. Write any one advantage of IT.
Ans: Quick access to information.

FILL IN THE BLANKS

1. IT stands for **Information Technology**. (Information Technology/In Time)
2. E-mail is **electronic** means of communication. (electrical/electronic)
3. IT has completely **revolutionized** our life. (revolutionized/destroyed)
4. Tele-conferencing is one of the applications of **IT**. (chat/IT)
5. IT has played **important** role in Education. (important/least)
6. IT has advantages as well as **limitations**. (merits/limitations)

TRUE / FALSE

1. ICT stands for Information and Customer Technology. Ans: **False**
2. MIS stands for management information system. Ans: **True**
3. E-mail using internet is a tool of information Technology. Ans: **True**
4. Information technology is the application of technology to solve business or organisational problems on a broad scale. Ans: **True**
5. Information Technology is also known as Information and Communication Technology. Ans: **True**

MULTIPLE CHOICE QUESTIONS

1. IT stands for:
a) Internet Technology b) Information Technology
c) Internal Transfer d) Intelligent Technique
2. A major advantage of IT is:
a) Costly operations b) Fast communication and data access
c) Only manual work d) Limited to villages
3. Which of the following is a recent IT trend?
a) Green Computing b) Typewriter c) Analog phones d) Pagers
4. Information Technology is useful in:
a) Schools b) Business Organisations c) Hospitals d) All of these
5. E-mail stands for:
a) Electronic mail b) Elegance mail c) Electrical mail d) Pagers

Answer Key:

1. (b) 2. (b) 3. (a) 4. (d) 5. (a)

Two Marks Questions:

Q. 1. Define Information Technology.

Ans: The term *Information Technology* (IT) is widely used nowadays. It refers to the subjects related to creating, managing, processing and exchanging information. It defines an industry that uses computers, networking, software, and other equipment (hardware) to store, process, retrieve, transmit, and protect information.

IT plays a crucial role in almost every aspect of modern life, from business operations to personal communication. With IT, tasks that once took hours or days can now be completed in seconds.

Q. 2. Discuss the role of IT in the field of Education.

Ans: IT (Information Technology) has brought a revolution in the field of education. In addition to

conventional chalkboards, teachers of today rely increasingly on digital media. Digital lessons, being attractive and interesting, hold the interest of young audience and help students to understand concepts more effectively. Computer-based tutorial software is also used as a teaching aid to supplement classroom learning. Today, we can find a computer in a classroom, laboratories or in a library. There is no need of carrying huge books, as books are available in the form of CDs or DVDs etc. Computers make the concept of learning very interactive with the involvement of real-life pictures, animations, audios and videos.

Q. 3. What is the importance of computers in Banking Industry?

Ans: Computers are used in banks for a variety of reasons. Banks use computers to track customer information such as name, address, phone number, date of birth, social security number, account number and place of employment. This information is used to stay in touch with customers and notify them about any changes in bank policy. Computers help tellers or bankers keep a record of all transactions for the day. A bank can use computers for new loan applications and credit card applications also. Without computers, it would be very hard for a bank to offer good customer service day in and day out.

Four Marks Questions:

Q. 1. Write any four advantages of Information Technology.

Ans: Information Technology (IT) refers to the subjects related to creating, managing, processing and exchanging information through computers. Information technology has made a major impact on our lives. In everyday life, there is a small role of information technology in it.

Advantages of Information Technology:

The major advantages of information technology are discussed below:

- 1) Communication:** With the help of information technology, communication has also become cheaper, quicker, and more efficient. We can now communicate with anyone around the world by simply text messaging them or sending them an e-mail. The internet has also opened up face-to-face direct communication from different parts of the world through video conferencing.
- 2) More Business Time:** IT has made it possible for businesses to be open 24 x7 all over the globe. This means that a business can be open anytime anywhere, making purchases from different countries easier and more convenient.
- 3) Information Sharing:** Business organizations are spreading their offices geographically wider in search of better raw material, production environment and market to consume their products. Due to the impact of information technology, anyone linked directly or indirectly with the organization can share or access the organization's data.
- 4) More Job Opportunities:** The best advantage of information technology is the creation of new and interesting jobs. Computer Programmers, Systems Analysts, Software Developers and Web Designers are just some of the many new employment opportunities created with the help of IT.

Q. 2. Write any four limitations of Information Technology.

Ans: The major limitations of information technology are discussed below:

- 1) Privacy:** Though information technology may have made communication quicker, easier and more convenient, it has also brought along privacy issues. E-mail hacking, mobile phone cloning etc. can make people's private information public in no time.
- 2) Lack of job security:** Industry experts believe that the internet has made job security a big issue as since technology keeps on changing with each day. This means that one has to be in a constant learning mode, if he or she wishes for their job to be secure.
- 3) Unemployment:** IT has created so many job opportunities for skilled and educated youth. The middle-man kinds of jobs are being eliminated because direct interaction has increased.
- 4) Misuse of Technology:** Misuse of information technology is becoming a hot issue. Videos clippings made through cameras and mobile phones are distracting the minds of the people, especially youth. Cyber-crimes, pornography, ATM frauds etc. are increasing now days.

Chapter: 4
Recent Trends in Information Technology

One Mark Questions:

ONE LINE / ONE WORD ANSWER QUESTIONS

1. What do you mean by recent trends in information technology?
Ans: Latest innovations like AI, Cloud Computing, Quantum Computing, Green Computing, Robotics.
2. Define Artificial Intelligence.
Ans: AI is the simulation of human intelligence in machines to perform tasks like learning, reasoning, and decision-making.
3. Who is known as father of Artificial Intelligence (AI)?
Ans: John McCarthy.
4. Give any one advantage of Artificial Intelligence.
Ans: High speed and accuracy in tasks.
5. Give any one disadvantage of AI.
Ans: Job loss due to automation.

FILL IN THE BLANKS

1. John McCarthy is known as father of Artificial Intelligence.
(Artificial Intelligence/Cloud computing)
2. Artificial Intelligence is concerned with intelligent behaviour in machines. (humans/machines)
3. J.C.R. Licklider is known as father of Cloud computing. (Cloud/Super)
4. The “Cloud” in Cloud computing refers to remote servers. (computer/server)
5. David Elieser Deutsch is known as father of Quantum computing. (Quantum/cloud)

TRUE (T) / FALSE (F)

1. Artificial Intelligence and Cloud computing are recent trends in Information Technology. Ans: **True**
2. The word “Artificial Intelligence” came from the contribution by Alan Mathison Turing. Ans: **False**
(It came from John McCarthy)
3. The “Cloud” in Cloud computing refers to remote servers. Ans: **True**
4. Cloud computing helps in immediate disaster recovery of data. Ans: **True**
5. Quantum computer can compute data/solve complex data problems in extra super fast speed as compared to super computer (digital). Ans: **True**

MULTIPLE CHOICE QUESTIONS

Answer Key:

1. (b) 2. (a) 3. (b) 4. (b) 5. (c)

Two Marks Questions:

Q. 1. What are the benefits of artificial intelligence.

Ans. Benefits of artificial intelligence are:

1. AI improves, automates, and processes time-sensitive data with minimal human interference requirements
2. It accelerates business processes, makes informed decisions with an accurate perception.
3. It enriches customer experience, ensures safety operations, and enhances system capabilities.

Q. 2. List different types of cloud computing.

Ans. The services hosted on cloud is broadly divided into infrastructure-as-a-service (IaaS), platform-as-a-service (PaaS), and software-as-a-service (SaaS). Based on the deployment model, cloud is also classified as public, private, and hybrid cloud.

Q. 3. List benefits of Quantum Computing for business.

Ans. Some of the benefits of quantum computing for businesses are: Enables low-cost, real time tracking and sensing of items, improving visibility and efficiency; potential for unforgeable provenance and new ways for objects to report identity, history and properties.

Four Marks Questions:

Q. 1. What do you mean by Green Computing? state its benefit.

Ans. Green Computing is the practice of using technology in a way that reduces its environmental impact. This involves efficient use of resources, minimizing waste, and promoting sustainability in all stages of a product's lifecycle.

Benefits of Green Computing

1. Enhanced Corporate Image: The use of green computing practices by companies improve their public image as environmentally responsible.

2. Reduced Energy Bills: The use of Energy-efficient hardware and practices in green computing significantly lower electricity bills.

3. Increased Efficiency: The use of energy-efficient systems and practices in green computing increases overall efficiency in IT operations.

4. Environmental Protection: Green Computing minimizes e-waste and reduces the carbon footprint of IT operations.

Q. 2. List four benefits of robotics for business.

1. Cost-saving: While the investment in robotic systems can be substantial/huge but in long term benefits are more returnable/profitable. Robots work tirelessly and efficiently, so reducing labour costs associated with salaries, another financial benefits and overtime pay.

2. Enhancing productivity: Robots don't require break and vacations etc. which leads to enhanced/higher production rates and operational output with efficiency. Industries that require continuous and high-volume production, such as automotive manufacturing and food processing greatly benefit from this advantage of robotics automation technology.

3. Job Flexibility: Robots can be programmed and redeployed for different tasks/product lines, providing business with vast range of flexibility in manufacturing production. This adaptability is invaluable in industries with changing market demands.

4. Efficiency: Automation optimizes manufacturing processes, reducing material wastage and enhancing resource efficiency. Robots are programmed for precise and effective use of materials, resulting in minimal waste and cost savings, which leads to efficiency.

Chapter: 5

E-Governance

One Mark Questions:

ONE LINE / ONE WORD ANSWER QUESTIONS

1. Define E-governance.

Ans: Use of information and communication technology (ICT) in government processes to provide services, exchange information, and improve efficiency.

2. Write One advantage of E-governance.

Ans: Transparency in government functioning.

3. Write One limitation of E-governance.

Ans: Digital divide (lack of internet access for all citizens).

4. Give Two types of E-governance.

Ans: Government to Citizen (G2C), Government to Business (G2B)

5. Give Two pillars of E-governance.

Ans: People, Process (Other two are Technology & Resources)

FILL IN THE BLANKS

1. G2E stands for Government to Employee. (Employee/Enemy)

2. The application of ICT in governance procedures is called E-governance. (Phone/ICT)

3. There are four pillars of E-governance. (four/six)

4. The third stage of E-governance is Transaction. (Transaction/Transfer)

5. E-governance service should be **accessible** to anybody from anywhere at any time. (accessible/essential)

TRUE / FALSE STATEMENTS

1. E-governance has three pillars. – **False** (It has 4 pillars)
2. E-governance is of four types. – **True**
3. One of the advantages of E-governance is Expanded reach of governance. – **True**
4. E-governance is not citizen-centric. – **False**
5. It has played an important role in providing easy information access to users. – **True**
6. There are four stages of E-governance by Gartner model. – **True**
7. E-governance increases paperwork. – **False**

MULTIPLE CHOICE QUESTIONS

1. E-Governance means:
a) Electronic management of government services
c) Manual governance
b) Election governance
d) None of these
2. Which of the following is a type of e-governance?
a) G2C b) G2E c) G2G
d) All of these
3. An advantage of e-governance is:
a) Transparency in government services
c) Paper-based work
b) Delay in services
d) Corruption increase
4. A limitation of e-governance is:
a) Accessibility issues in rural areas
c) Easy communication
b) Quick services
d) 24×7 availability
5. Cyber law deals with:
a) Traffic rules b) Crimes on the internet c) Civil laws only d) Agriculture

Answer Key:

1. (a) 2. (d) 3. (a) 4. (a) 5. (b)

Three Marks Questions:

Q. 1. What is E-governance?

Ans: E-governance (or Electronic Governance) use information and communication technology (ICT) means (such as internet, Local Area Networks, mobiles etc.) to improve the quality of delivering government services, exchange of information, communication transactions to citizens, employees, businesses, other sectors of government.

Q. 3. What is Government-to-Government?

Ans: G2G model is the electronic sharing of data and/or information systems between government agencies, departments or organizations. It is online non-commercial interaction between government organizations, departments, and authorities and other Government organizations, departments, and authorities. It increases the flow of information and services, proper functioning and restructure of process within and between different government entities.

Q. 3. What is Government-to-Business?

Ans: G2B model offer government to approach business organizations. It is online non-commercial interaction between government and the commercial business sector. It involves transactions between a government and business organizations. The initiative comes from a government organization and businesses are the target group.

Four Marks Questions:

Q. 1. Give some examples of E- governance.

Ans: There are many different examples of E-governance around the world. Some common examples include:

- **Online tax filing:** This allows citizens to file their taxes online, without having to visit a government office.
- **Online passport applications:** This allows citizens to apply for a passport online, without having to visit a government office.
- **Online birth certificate applications:** This allows citizens to apply for a birth certificate online, without having to visit a government office.
- **Online land records:** This allows citizens to access information about land record online.
- **Online government procurement:** This allows businesses to participate in government procurement processes online.

Q. 2. Explain any four advantages of E-governance.

Ans:

1. **Transparency:** The use of E-governance helps to make all business functions transparent. All governmental information can be uploaded onto the internet. The citizens specifically access whichever information they want, whenever they want it, at the click of a mouse, or the touch of a finger.
2. **Reduce Corruption:** One of the major benefits of transparency between the government and businesses/citizens is low corruption. Since the significant reason for corruption is to access government officials only, the involvement of the public can reduce the number of corrupt practices like bribes and scams.
3. **Improved Efficiency:** One of the main advantages of E-governance is the potential to improve the efficiency of the current paper-based system. By digitizing government services and information, E-governance can streamline administrative processes, reduce paperwork, and save time and money.
4. **Cost Reduction:** With the expansion of E-governance, government expenditure involving paper-works like stationary, printers and pages would see a substantial reduction. Also communication through phones and the Internet further reduces government expenditure saving valuable money for the government.

Chapter: 6

Cyber Security, Cyber Laws and DigiLocker

One Mark Questions:

Objective Type Questions – One Line/One Word Answers

1. **Define Cyber Security.**
Ans: Protection of internet-connected systems from cyber threats.
2. **Define Cyber Crime.**
Ans: Illegal activities conducted via digital devices or networks.
3. **Give one type of Cyber Crime.**
Ans: Phishing.
4. **Expand DDoS.**
Ans: Distributed Denial of Service.
5. **Give one source of Cyber Threats.**
Ans: Hackers.

Fill in the Blanks

1. Cyber security is the practice of protecting systems, networks, and programs from cyber attack. (cyber/enemy)
2. A common type of cyber threat is ransomware, where hackers demand payment to release data. (ransomware/kidnapping)
3. Cyber law encompasses legal issues related to the use of computers and the internet. (television/computers)
4. The Information Technology Act, 2000, is the primary law in India dealing with cybercrime and electronic commerce. (2002/2000)
5. Phishing is an attempt to obtain sensitive information by disguising as a trustworthy entity in electronic communication. (Slapping / Phishing)

TRUE/FALSE STATEMENTS

1. Cybersecurity is the practice of protecting systems, networks, and data from digital attacks. Ans: **True**
2. Cybercrime refers to any criminal activity that involves a computer or network. Ans: **True**
3. Phishing is a type of cyber attack where attackers use fake emails IDs to steal personal information. Ans: **True**
4. Ransomware is software designed to prevent access to data until a ransom is paid. Ans: **True**
5. Malware stands for malicious software designed to harm or exploit any programmable device. Ans: **True**

MULTIPLE CHOICE QUESTIONS

1. What is the primary goal of cybersecurity?

- (a) To increase internet speed
- (b) To protect systems and data from cyber threats
- (c) To enhance social media presence
- (d) To develop new software

2. Which type of cybercrime involves unauthorized access to data?

- (a) Phishing (b) Hacking (c) Spamming (d) Identity theft

3. What does 'phishing' typically involve?

- (a) Creating viruses
- (b) Sending fraudulent emails to obtain sensitive information
- (c) Stealing physical documents (d) Hacking into Wi-Fi networks

4. Which law regulates cybersecurity in India?

- (a) The Companies Act, 2013 (b) The Information Technology Act, 2000
- (c) The Data Protection Act, 2019 (d) The Consumer Protection Act, 2019

5. What is the purpose of the DigiLocker in India?

- (a) To store physical documents
- (b) To provide a digital repository for documents and certificates
- (c) To create social media accounts
- (d) To enhance online shopping experience

Answer Key:

- 1. (b) 2. (b) 3. (b) 4. (b) 5. (b)

Two Marks Questions:

Q. 1. What is Cyber Security?

Ans: Cyber security is the protection of internet-connected systems such as computers, mobile devices including hardware, software and data from cyber attackers. It is primarily about people, processes and technology working together to protect networks, devices, programs and data from attack, theft, damage, modification or unauthorized access.

Q. 2. What is DigiLocker?

Ans. DigiLocker is an online platform providing users with a secure digital wallet to store and access essential documents digitally, offering convenience and eliminating the need for physical copies.

Q. 3. How does DigiLocker Work?

Ans. DigiLocker provides users with a secure online account linked to their Aadhaar number, allowing them to store, access, and share digital copies of documents effortlessly.

Q. 4. Which Indian Cyber Law covers different types of cyber crimes?

Ans. Information Technology (IT) Act, 2000 is the cyber law in India that contains provisions relating to cyber security in India.

Four Marks Questions:

Q. 1. Write a short note on IT Act.

Ans: The Information Technology Act, also known as the IT Act, mainly aims to provide the legal infrastructure in India dealing with cybercrime and e-commerce.

Salient Features:

1. The IT Act is based on the United Nations Model Law on E-Commerce 1996 recommended by the United Nations General Assembly.
2. This act is also used to check misuse of cyber network and computer in India.
3. It was officially passed in 2000 and amended in 2008. It has been designed to give the boost to e-commerce, e-transactions and related activities associated with commerce and trade.
4. It also facilitates e-governance by means of reliable electronic records.

Q. 2. Write the steps involved in working of DigiLocker.

Ans: Functioning/working of digilocker app includes the following steps

1. Open DigiLocker portal digilocker.gov.in
2. Click on the Sign up in the portal using your mobile number or Aadhar number
3. Once you receive OTP, write the respective field and click on Verify button.
4. In the next screen, create your username and password and submit it (later you can Sign in with this username and password or you can login with your Aadhaar number as well).
5. Next screen comes to get Aadhar number. Enter your Aadhaar number in the field and

click the check box to authenticate digilocker to assess your e-KYC details from UIDAI server.

6. Once the process completes, it will show on your dashboard.
7. Later, you can also verify your email address to receive mails from the dashboard.
8. Click on the username drop down and select Upload documents.
9. From here, you can upload your scanned documents in the .pdf, .jpeg, .png file formats of maximum upload size of 10 **MB** of each file.

Chapter: 7

Introduction to E-Business, E-Business in India and Futurology of E-Business

One Mark Questions:

ONE LINE / ONE WORD ANSWER QUESTIONS

1. **Who have given the term “e-business”?**
Ans: IBM (in 1997).
2. **In which year was Internet invented?**
Ans: 1969 (ARPANET started).
3. **Who invented Internet?**
Ans: Vinton Cerf and Robert Kahn.
4. **Write any one element of e-business.**
Ans: Online marketing (or online transaction, supply chain, etc.).
5. **Give any one guideline for securing e-business.**
Ans: Use strong encryption and secure payment gateways.

FILL IN THE BLANKS

1. E-business refers to **electronic** business. (electric/electronic)
2. E-commerce refers to **electronic** commerce. (electric/electronic)
3. E-commerce is Pure **online** business. (offline/online)
4. E-business is brick and **click** mode of business. (calm/click)
5. G2B stands for Government to **Business**. (Beyond/Business)

TRUE / FALSE STATEMENTS

1. IBM stands for Integrated Business machines. – **False** (It stands for International Business Machines)
2. E-business has wider scope as compared to e-commerce. – **True**
3. E-commerce is one of the functions of e-business. – **True**
4. E-business is “Pure-Play” form of business. – **False** (That is e-commerce)
5. E-commerce is “Brick and Mortar” form of business. – **False** (Traditional business is Brick and Mortar)

MULTIPLE CHOICE QUESTIONS

- 1. E-business means:**
(a) Endorsed Business (b) Electrical Business (c) Electronic Business (d) None of these
- 2. Basic Requirement for e-business is:**
(a) Internet (b) Intranet (c) Extranet (d) All of these
- 3. Features of e-business are:**
(a) Minimises investments (b) User friendly (c) Wide scope (d) All of these
- 4. Functions of e-business is/are:**
(a) E-Procurement (b) E-Payments Management (c) E-Mail Management (d) All of these
- 5. Elements/Components of E-business is/are:**
(a) Online stores (b) Online communities
(c) Online Market Place/Platform (d) All of these

Answer Key:

1. (c) 2. (a) 3. (d) 4. (d) 5. (d)

Two Marks Questions:

Q. 1. Define E-Commerce.

Ans. Dictionary.reference.com defines e-commerce as “The buying and selling of goods and services over the Internet.” According to Dictionary.com e-commerce is “The conducting of business communications and transactions over networks and through computers.” Put simply e-commerce is the process of doing business online. e-commerce is to conduct business by using the information technology i.e. Computer technologies and

the electronic communications. In other words, it is the buying and selling of items or goods and services on the Web.

Q. 2. What are the types of E-Commerce?

Ans. The various types of E-Commerce are as below:

1. Business to Consumer (B 2 C)
2. Business to Business (B 2 B)
3. Consumer to Consumer (C 2 C)
4. Peer to Peer (P 2 P)
5. Government to Business (G2B)
6. Government to Citizen (G2C)
7. Government to Government (G2G)

Q. 3. What is B2C Commerce?

Ans. Business to Consumer (B 2 C): Business to consumer type of e-commerce involves an individual and a shop selling goods. In this model, the business directly sells to the end consumers. As this media offers scope for 24 hour direct retail shopping and global reach, it provides the facility to interact and provides customers information and ordering. In the West a number of companies are already reporting considerable success through this media.

Q. 4. What is C2C Commerce?

Ans. Consumer to Consumer (C to C): In this segment of E-business, the consumers themselves deal with other consumers for buying and selling goods and products. These may include rare, special category or second hand goods. Such business sites do not form a very high proportion in web based commerce. The most important of such sites are the auction sites, which let any one to list anything for sale so that every one visiting that site can bid for it. These sites are message sites like the ones for business to consumer, as they depend on more people visiting and using the site and its services.

Four Marks Questions:

Q. 1. Write four functions of E-Business.

Ans:

1. **Enterprise Resource Planning (ERP):** Enterprise Resource Planning (a type of software based system) which is used in e-business to help companies/organisations automate and manage core business processes for optimal performance, particularly in operations, sales, resources management and more.
2. **Supply Chain Management (SCM):** E-business does Supply Chain Management job for monitoring and optimization of the production and distribution of a company's products and services.
3. **Business Intelligence (BI):** E-business, using Business intelligence helps organisation to analyse data for better decision making and profitable pursuits.
4. **Managing online activities between businesses:** E-business also manages online activities among/between businesses so that it runs smoothly and these activities may be optimised for profit and meaningful human resource relations.
5. **Collaboration/Co-operation with business partners:** E-business aims to deliver and function in the direction of collaboration and co-operation with business partners so that good business relations may boost goodwill of the company.

Q. 2. Write a short note on E-Business in India.

Ans: In India, internet is now available both in urban as well as in rural areas, this only because of low cost of data packs, very less price of smart phones, many people are aware about the importance of internet and important contribution is by "Digital India" (Digital India is a campaign launched by the Government of India to make its services available to citizen electronically via improved version of online infrastructure and by increasing and upgrading internet connectivity). It was launched on July 1, 2015. It consists of three core components:

- The development of secure and stable digital infrastructure.
- delivering govt. services digitally to consumers.
- Universalisation of digital literacy

Main "Digital India" initiative was to include, plan to connect rural areas with high-speed internet networks. All these have played a very important role in spreading the internet all over India. Which laid the foundation stone to establish & expand e-business (e-commerce

in India).

The purpose of initiation and enlargement/expansion of high speed internet services to citizens by Govt of India is to facilitate e-governance, e-business so that more and more money may be generated for its citizen's efforts and as a result for govt. of India in the form of taxes so that it may compete world's e-business. (e-commerce) platform.

Chapter: 8

Digital Currency and Digital Payments

One Mark Questions:

ONE LINE / ONE WORD QUESTIONS

1. What is digital currency?

Ans: Currency that exists only in electronic form

2. Name any 4

Ans: Bitcoin.
3. What is a digital wallet?
A digital wallet is a software application that stores information about a user's digital assets and manages their spending.

Ans: An application or device that stores pay

4. What does QR stand for?
A. Quick Response

Ans: Quick Response.

3. Which technology is commonly used for contactless payment?
Ans: Near Field Communication (NFC)

Ans. Near Field Communication
FILL IN THE BLANKS

FILL IN THE BLANKS

1. A **digital payment** is a method of transferring money electronically, often using the internet or mobile devices. (digital payment/digital wallet)
2. A **digital wallet** is a device or application that stores payment information and allows users to make transactions electronically. (digital payment/digital wallet)
3. The technology used for making contactless payments using smartphones is called NFC (**Near Field Communication**) (Near Field /Non Fungible)
4. **Mobile** payments are transactions made using a mobile app or device, such as through Apple Pay or Google Wallet. (Currency /mobile)
5. A **payment gateway** is a secure online service that processes payments made by credit or debit cards. (digital payment/payment gateway)

**(digital payment/payment gateway
TRUE / FALSE STATEMENTS**

TRUE / FALSE STATEMENTS

1. Digital currency is the same as cryptocurrency. – **False**
2. Bitcoin is an example of a digital currency. – **True**
3. Digital payments can be made using mobile wallets like Apple Pay and Google Pay. – **True**
4. A blockchain is a decentralized ledger used to record transactions in many digital currencies. – **True**
5. Digital currencies are always centralized and controlled by a single authority. – **False**

MULTIPLE CHOICE QUESTIONS

MULTIPLE CHOICE QUESTIONS

1. Digital currency is also known as:
a) Cryptocurrency b) Paper money c) Cheque d) None
2. Which is NOT a type of digital currency?
a) Bitcoin b) Ethereum c) Paytm Wallet d) Cheque
3. Which of these is an advantage of digital payments?
a) Faster transactions b) Cash dependency c) Time-consuming d) Physical exchange
4. Limitation of digital currency is:
a) Security risks b) Easy transfer c) Transparency d) Accessibility
5. UPI in India stands for:
a) Unified Payment Interface b) Universal Payment Interaction
c) Unique Payment Identification d) None

Answer Key:

1. (a) 2. (d) 3. (a) 4. (a) 5. (a)

Two Marks Questions:

Q. 1. Define digital currency.

Ans. Digital currency (digital money, electronic money or electronic currency) is any currency, money, or money-like asset that is primarily managed, stored or exchanged on digital computer systems, especially over the internet.

Q. 2. List various types of digital currency.

Ans. Central Bank Digital Currencies (CBDCs), Cryptocurrencies, Stablecoins, and Virtual Currency are some of the types of digital currency.

Q. 3. What do you mean by digital payment?

Ans. Digital payment system encompasses various payment methods like bank transfers, mobile money or wallets, contactless payments, cryptocurrencies, QR codes, and other payment tools such as credit, debit, and prepaid cards. These payments can happen on different levels of digital involvement, ranging from partially digital to entirely digital in nature.

Four Marks Questions:

Q. 1. Write any four advantages of digital currency.

Ans:

- 1. Efficiency and Speed:** Digital currencies can facilitate rapid transactions, especially for international transfers, which traditionally take several days. It reduces or eliminates intermediaries like banks and payment processors. Digital currencies can lower transaction fees.
- 2. Transparency and Security:** Blockchain technology ensures that transaction records are secure, transparent, and immutable, reducing the risk of fraud and corruption. All transactions are recorded on a public ledger, making it easier to trace and audit financial activities.
- 3. Programmable Money:** Digital currencies, especially those on platforms like Ethereum, support smart contracts, which can automate and enforce contractual agreements without human intervention. Businesses can create tailored financial products and services, such as automated payments, escrow services, and decentralized finance (DeFi) applications.
- 4. Innovation and Economic Growth:** Digital currencies enable new business models, such as decentralized applications (dApps) and tokenized assets. They can drive economic growth by fostering innovation and creating new markets.

Q. 2. Write any four limitations of digital currency.

Ans:

- 1. Regulatory Challenges:** The regulatory environment for digital currencies is still evolving, leading to **uncertainty and potential legal challenges** for users and business: Adhering to varying regulatory standards across different jurisdictions can be **complex and burdensome** for digital currency platforms.
- 2. Technical Barriers:** Understanding and using digital currencies requires technical knowledge, which can be a barrier for many potential users.: Many digital currencies face **scalability challenges**, leading to slow transaction times and high fees during periods of high demand. For example, Bitcoin and Ethereum have faced significant congestion and high transaction fees at time.
- 3. Security Risks:** Digital currencies are targets for **hacking, phishing, and other cyber attacks**. Users must secure their wallets and private keys to prevent theft. Transactions made with digital currencies are typically irreversible, meaning mistakes or **fraudulent transactions** cannot be undone.
- 4. Privacy Concerns:** While blockchain technology ensures transparency, it also means that transaction details are publicly visible, which can raise privacy issues. The anonymity of certain digital currencies can facilitate illegal activities, such as money laundering and financing of terrorism, leading to increased scrutiny from regulators.

Chapter: 9 **E-Banking**

One Mark Questions:

ONE LINE / ONE WORD ANSWER TYPE QUESTIONS

1. Define E-Banking.

Ans: E-Banking is the use of electronic means to conduct banking transactions and services.

2. What is the full form of ATM?

Ans: Automated Teller Machine.

3. What is a credit card?

Ans: A payment card that allows users to borrow funds from a bank to pay for goods and services.

4. What is contained in a smart card?

Ans: An embedded microchip storing financial and personal data.

5. Write any one limitation of E-Banking.

Ans: Risk of cyber fraud or hacking.

FILL IN THE BLANKS

1. **ICICI** bank introduced internet banking the first time in India. (SBI / ICICI)

2. Internet banking is a type of E-banking service which allows you to do several financial and non-financial transactions through the **internet**. (Mobile/ Internet)

3. SMS Banking is a facility used by some banks to send **alerts**. (Ads / alerts)

4. E-banking is banking **less** expensive than traditional banking. (more / less)

5. The scope of E-banking is wide/**global**. (local / global)

TRUE/FALSE STATEMENTS

1. E-banking stands for electronic banking. – **True**

2. E-banking is fully secure. – **False**

3. EFT minimizes the chances of fraud. – **True**

4. SBI bank has initiated the internet banking in India. – **False** (ICICI introduced first)

5. E-banking offers benefits to consumers only. – **False**

MULTIPLE CHOICE QUESTIONS

1. E-Banking means:

a) Internet Banking b) Mobile Banking c) Online Fund Transfer d) All of these

2. Which is NOT an E-Banking service?

a) ATM b) Mobile Banking c) NEFT d) Physical Cheque

3. Traditional banking requires:

a) Physical presence b) Internet access c) ATM usage d) SMS alerts

4. Major limitation of E-Banking is:

a) Cyber fraud b) Convenience c) Speed d) 24x7 service

5. Example of E-Banking in India is:

a) SBI Net Banking b) UPI c) Mobile Apps d) All of these

Answer Key:

1. (d) 2. (d) 3. (a) 4. (a) 5. (d)

Two Marks Questions:

Q. 1. Briefly explain the process of e-banking.

Ans. First of all the user opens the website as per his requirement or he/she can download mobile banking app on his/her smart phone. After opening the website the user authenticate to the website server and the server authenticate to the user. The user uses his ID and Password for this purpose. If the user is new he may first be required to be got registered on the website. Various options may be available on the website. He opts the type of service as per his choice.

Q. 2. What do you mean by phone banking?

Ans. Phone banking (or telephone banking) is a service provided by a bank or other financial institution that enables customers to perform over the telephone a range of financial transactions that do not involve cash or financial instruments (such as checks) without the need to visit a bank branch or ATM.
Phone banking has simplified life as it allows bank customers to begin and finish payments and also use other banking services from the comfort of their smartphones. Clients benefit from the convenience of 24-hour banking services. Phone banking is used by the majority of the Indian population.

Four Marks Questions:

Q. 1. Write the importance of e-Banking: (a) to customers (b) to bank

Ans: (a) Importance to Customers:

1. **Anytime and Anywhere Banking:** E-banking provides 24 hours, 7 days in a week services to customers. All financial information can be obtained anytime. Customers can avail banking service anywhere while sitting at their home or office or any remote place or via mobile.

2. **Quick Service:** Customers can get information regarding details of their accounts very quickly. With the help of e-banking, there is no need for customers to visit the bank personally. There is no need to stand in queue for hours to complete financial transactions.
3. **Online Shopping:** Customers can purchase and make payments through e-commerce and online without wasting their time. They can invest in any scheme of the bank online without a physical appearance in the bank.
4. **Customer Satisfaction :** Electronic banking provides greater efficiency and satisfaction to the consumer. Transactions can be performed without risk and with greater security as there is no need to carry cash while travelling.

(b) Importance to Banks:

1. **Central Data Base :** The Central database has helped every branch of banks to reduce the work load. It has reduced the work load on local branches, by the establishment of a central database.
2. **Minimize Cost :** E-banking is helpful to banks by minimizing the cost of various transactions by way of ATMs, Telephone banking, internet banking and mobile banking etc. It has helped the bank in reducing the cost for providing services to customers because electronic exchanges are the least expensive methods of exchange.
3. **Minimize Frauds :** Through E-banking, frauds can be reduced by obtaining centralized data through inter-branch reconciliation.
4. **Maximizes profit :** E-banking helps in reducing endless paperwork. The use of bank statements, spreadsheets, bulky books of accounts and ledgers has been minimized. Customers can take statements online without wasting paper. It increases the productivity of banks, enhances banks profit and saves the environment.

Q. 2. What are the services offered in e-banking? What are the advantages of e-banking?

Ans. Various types of services are provided by banks which are explained as follows:

1. **Credit Cards:** Credit card is a plastic card which is issued by a bank. It is issued to customers of high credit ranking. The necessary information is stored in magnetic form on the card. A card holder can purchase the items from shops or showrooms and need not pay cash.
2. **Debit Card:** A debit card (also known as check card or ATM card) is a card that is used to access money in a checking or saving account. Debit cards look like credit cards but operate like cash or personal checks. When you use a debit card, you are subtracting your money directly from your bank account and you can spend only up to the amount in that account.
3. **Mobile Banking:** Mobile banking provides customer to access their account on mobile phone screen. Routine banking transactions can be performed by just punching a few letters on mobile. Mobile banking provides various types of services like balance enquiry of saving and current accounts, placing a stop payment on cheque, Bill Payment etc.
4. **Telephone Banking:** Tele banking is another important service provided by E-banking. Tele banking is a service where banks get various phone calls during their working hours. It helps the users to transact various transactions while remaining at home. Under tele-banking a customer is just supposed to call up a bank and then customer is asked to press a particular number for a particular type of service.

Chapter: 10 **E-Marketing**

One Mark Questions:

ONE LINE / ONE WORD ANSWER QUESTIONS

1. Define E-marketing.

Ans: E-marketing is the use of digital technologies and internet platforms to promote and sell products or services.

2. Write any one advantage of E-marketing.

Ans: Wide global reach.

3. Write any one limitation/disadvantage of E-marketing.

Ans: Risk of cyber fraud.

4. Name any 2 P's of E-marketing.

Ans: Product, Price.

5. What is the other name of E-marketing?

Ans: Digital marketing.

FILL IN THE BLANKS

1. E-marketing is a **cost-effective** way of product promotion. (expensive / cost-effective)
2. E-marketing gives **quick** results. (delayed/quick)
3. Businesses can get **direct** feedback from customers in E-marketing. (direct/indirect)
4. E-marketing has **global** reach. (global/local)
5. **Blogging** is the example of content marketing. (Blogging/Chatting)

TRUE/FALSE STATEMENTS

1. E-marketing plays an essential role in creating customer satisfaction. –**True**
2. Social media platforms are not essential for E-marketing. –**False**
3. E-marketing is a marketing strategy that promotes products and services using traditional advertising channels such as newspapers, magazines, television, radio and so on. –**False**
4. There are only 4 P's of E-marketing. –**False**
5. E-marketing requires less time than traditional marketing. –**True**

MULTIPLE CHOICE QUESTIONS

1.. E-marketing is related:

- (a) Online sale and purchase of securities
- (b) Sale and purchase of goods and services through internet
- (c) Both (a) and (b)
- (d) None of these

2. Which of the following is not a 'P' of e-marketing?

- (a) Product
- (b) Producer
- (c) place
- (d) price

3. E-marketing requires:

- (a) Whole sellers
- (b) Retailers
- (c) Costly outlets
- (d) None of these

4. Which of the following is true about e-marketing?

- (a) It has only local coverage
- (b) It has only national coverage
- (c) It has only global coverage
- (d) None of these

5. Which of the following is required for e-marketing?

- (a) Television
- (b) Newspaper and magazines
- (c) Internet enabled computer
- (d) None of the above

Answer Key:

1. (b) 2. (b) 3. (d) 4. (c) 5. (c)

Four Marks Questions:

Q. 1. What is E-Marketing? Give in brief three features of E-Marketing.

Ans. Very simply put, e-marketing or electronic marketing refers to the application of marketing principles and techniques via electronic media and more specifically the internet. The terms e-marketing, Internet Marketing and online marketing are frequently interchanged and can often be considered synonymous.

Some of the salient features of e-marketing are describes as under:

- 1. Cost Effectiveness:** Cost effectiveness is one of the main features of e-marketing. E-marketing affects prices. Goods and services are sold directly to consumers in e-marketing which eventually reduces their cost.
- 2. Direct Interaction:** Another feature of e-marketing is the direct interaction between the producer and the consumer. They trade directly with each other. Thus, it saves time and money.
- 3. Suitable for Producers and Consumers:** E-marketing is suitable for producers, sellers as well as consumers. In today's consumer market, consumers purchase only those products which satisfy their needs. Hence, production has to be done as per the needs, desires, likes and dislikes of consumers. E-marketing helps a great deal to both producers and consumers in this direction.
- 4. Marketing Experience:** In e-marketing a consumer can open any website, he can acquire every type of information relating to the product which he wants to buy and compare its features and prices with other such products available in the market.

Q. 2. What is E-marketing? Differentiate between 'traditional marketing' and 'E-marketing'.

Ans: E-marketing, also known as *online marketing* or *digital marketing*, involves promoting products or services using the internet and other digital channels such as websites, social media, e-mail, search engines, and mobile apps.

Characteristics	Traditional Marketing	E-Marketing
Customer interface	Face to Face: In traditional marketing, businesses interact with customers directly, in person.	Screen to Face: In e-marketing, the interaction happens through a screen, such as a computer or smartphone.
Accessibility	Limited: Traditional marketing is limited to certain hours and places.	24 x 7: E-marketing is available all the time.
Market	Limited: Traditional marketing often reaches only a local or regional audience.	Global: E-marketing can reach people all over the world
Overall Cost	Expensive: Traditional marketing methods like TV ads, billboards, or printed flyers usually cost a lot of money.	Cheap: E-marketing is generally less expensive. Creating a social media post, sending e-mails, or running an online advertisement can be done at a lower cost.

Chapter: 11

E-Retailing

One Mark Questions:

ONE LINE/ONE WORD QUESTION ANSWERS

1. What is e-retailing?
Ans: Selling goods and services through electronic platforms (internet).
2. Name one e-retailing platform.
Ans: Amazon
3. Who is a major player in the e-retail industry?
Ans: Amazon
4. What is essential for secure online payment transactions in e-retail?
Ans: Payment gateways
5. What does SEO stand for?
Ans: Search Engine Optimization

FILL IN THE BLANKS

1. E-retailing refers to the sale of goods and services through the internet. (internet/manual)
2. Mobile commerce involves shopping through mobile devices. (Mobile/manual)
3. One of the major players in the global e-retail industry is Amazon. (Amazon/Flipkart)
4. A current trend in e-retail is increased personalisation through AI. (personalisation/cost)
5. One significant factor driving the growth of e-retail is convenience. (convenience/hardship)

TRUE/FALSE STATEMENTS

1. E-Retailing refers to the sale of goods and services exclusively through physical stores. –**False**
2. Mobile commerce (m-commerce) is a subpart of e-retail that involves shopping through mobile devices. –**True**
3. Amazon is a major player globally in e-retail industry. –**True**
4. Convenience is a significant factor driving the growth of e-retail. –**True**
5. Consumers are less likely to read reviews and ratings before making online purchases. –**False**

MULTIPLE CHOICE QUESTIONS

1. E-Retailing means:
 - a) Selling through physical shops
 - b) Selling through online platforms
 - c) Only wholesale selling
 - d) None of these
2. Major challenge of E-Retailing is:
 - a) Delivery logistics
 - b) Inventory management
 - c) Return handling
 - d) All of the these
3. Scope of E-Marketing in India is:
 - a) Increasing rapidly with internet penetration
 - b) Declining
 - c) Only limited to rural areas
 - d) None of these
4. Limitation of E-Retailing is:
 - a) Dependence on internet
 - b) Cyber risks
 - c) Delivery delays
 - d) All of the these

5. Popular E-Retailers in India include:

- a) Flipkart
- b) Amazon
- c) Myntra
- d) All of the these

Answer Key:

- 1. (b) 2. (d) 3. (a) 4. (d) 5. (d)

Four Marks Questions:

Q. 1. What are the various types of E-Retailing? (Any four)

Ans: There are various types of e-retailing, each catering to different aspects of online sales and customer interactions:

1. **Business-to-consumer (B2C):** The most common form of E-Retailing where business sell products or services directly to consumers through online platforms. Example include Amazon, Walmart and online fashion retailers, etc.
2. **Business to Business (B2B) :** In this model, businesses sell products or services to other businesses. This can include wholesale distributors or companies providing software and other tools to another companies. Example include Alibaba.
3. **Consumer-to-Consumer (C2C) :** This type of E-Retailing involves consumers selling directly to other consumers through online market places. Example include eBay, olx.
4. **Consumer to Business (C2B) :** In this individuals (consumers) sell products or offer services to business. This model used less.

Q. 2. Write any four advantages of E-Retailing for business and consumers.

Ans: E-Retailing offers number of advantages for both business and consumers:

1. **Wider reach :** Business can reach a global audience breaking geographical barriers and expanding their customer base beyond local markets.
2. **Convenience :** Customers can shop 24/7 as they feel comfortable from their homes, avoiding the need to visit physical stores and it saves time.
3. **Cost savings :** E-Retailers often have lower overhead costs as compared to brick-and motor stores, which can translate to lower prices for customers.
4. **Personalization :** Advanced data analytics allow e-retailers to offer personalized shopping experiences, recommendations and targeted marketing based on customer behaviour and preferences.

Chapter: 12 **E-Customer Relationship Management**

One Mark Questions:

ONE LINE / ONE WORD ANSWER QUESTIONS

1. Define E-CRM.

Ans: E-CRM (Electronic Customer Relationship Management) is the use of internet, web-based technologies, and digital tools to manage customer relationships effectively.

2. Write any one advantage of E-CRM.

Ans: It improves customer satisfaction and loyalty.

3. Write any one limitation/disadvantage of E-CRM.

Ans: High implementation and maintenance cost.

4. Write any one feature of E-CRM.

Ans: Personalized communication with customers.

5. What do you understand by the concept of CRM?

Ans: CRM (Customer Relationship Management) is a business strategy to manage a company's interaction with current and potential customers to improve relationships and drive sales growth.

FILL IN THE BLANKS

1. E-CRM stands for **Electronic Customer Relationship Management**. (Customer/Commerce)
2. E-CRM is the application of **web** based technologies such as emails, websites, chatrooms etc. to achieve CRM objectives. (phone/web)
3. In **traditional CRM**, innovation is optional. (electronic/traditional)
4. Support demand generation and customer loyalty process via Internet are included in **marketing** function of E-CRM. (marketing/selling)
5. E-CRM is being adopted by companies because it increases **customer** loyalty. (Government/customer)

TRUE / FALSE STATEMENTS

1. E-CRM stands for Electronic Customer Retention Management. Ans: **False**
2. The primary goal of E-CRM is to increase customer loyalty and customer retention. Ans: **True**
3. It is not possible to have wide area coverage in E-CRM. Ans: **False**
4. E-CRM helps your business to reach out to your target audience. Ans: **True**
5. E-CRM helps in sales tracking. Ans: **True**

MULTIPLE CHOICE QUESTIONS

1. What does E-CRM stand for?

(a) Electronic Customer (b) Efficient CRM
 (c) Electronic Customer Relationship Management (d) Easy CRM

2. What is the main purpose of E-CRM?

(a) Store data (b) Improve relationships (c) Sell products (d) Reduce costs

3. Which is a feature of E-CRM?

(a) Online chat (b) Paper records (c) Slow service (d) Manual work

4. Which tool is used for support in E-CRM?

(a) Typewriter (b) Chatbot (c) Notebook (d) Radio

5. What is an advantage of E-CRM?

(a) Better service (b) More cost (c) Delayed response (d) Less data

Answer Key:

1. (c) 2. (b) 3. (a) 4. (b) 5. (a)

Two Marks Questions:

Q. 1. What does E-CRM stand for?

Ans: E-CRM stands for Electronic Customer Relationship Management. It is the use of the internet and digital tools to manage customer relationships. It helps businesses connect with customers, provide better service, and improve communication through emails, chatbots, and websites.

Q. 3. What is one advantage of E-CRM for businesses?

Ans: One advantage of E-CRM is *better customer management*. Businesses can store customer details, purchase history, and preferences. This helps them offer personalized services, send special discounts, and respond quickly to complaints, making customers happy and encouraging them to return.

Four Marks Questions:

Q. 1. Write any four features of E-CRM.

Ans: Following are the features of E-CRM.

1. **Contact Management:** The primary goal of E-CRM is maintaining effective interaction with customers. E-CRM software can assist organizations in collecting and analysing data.
2. **Automate Marketing campaign:** Marketing automation in E-CRM allows targeting customers with personalized campaigns by leveraging data. With the availability of such features, organizations can conduct marketing campaigns via e-mail or social media platforms in a streamlined manner that leads to high customer engagement and eventually generates more revenue.
3. **Sales tracking:** Sales tracking enables organizations to gain a 360-degree view of sales in various channels through sales tools. Also, it is feasible for organizations to get real-time insights and identify the flaws in the sales strategy.
4. **Case Management:** Case management refers to solving issues or inquiries raised by a customer. E-CRM pulls customer inquiries or complaints to a centralized database, enabling the customer service department to manage such cases effectively.

Q. 2. Write any four limitations of E-CRM.

Ans: Following are the limitations of E-CRM:

- (a) **High costs:** E-CRM systems can involve significant expenses beyond the initial purchase price. There are costs for software, customization, integration with other systems, training, and ongoing maintenance and upgrades.
- (b) **Complex technology:** The technology behind e-CRM can be complex, especially for small businesses with limited IT resources. The software often requires a high degree of customization and integration with existing systems, which can be both costly and time-consuming.

- (c) **Data integration issues:** A primary challenge is integrating the e-CRM platform with other existing company systems, such as enterprise resource planning (ERP) and inventory management. Poor integration can lead to data silos, workflow disruptions, and inaccurate insights.
- (d) **Data security risks:** Because e-CRM systems store large amounts of sensitive customer data, they are vulnerable to cyberattacks and data breaches. Such incidents can cause significant financial losses, legal liabilities, and reputational damage.

Chapter: 13

E-Tourism

One Mark Questions:

ONE LINE / ONE WORD ANSWER TYPE QUESTIONS

1. What is E-tourism?

Ans: E-tourism is the application of information and communication technologies (ICTs) like internet, mobile apps, and online platforms to improve and promote tourism services.

2. What are the corresponding components of E-tourism?

Ans: Tourism activities, business activities, ICT (Information & Communication Technologies).

3. Which services provide by E-tour operator?

Ans: Online booking, tour packages, travel information, e-ticketing, hotel reservations.

4. Give some examples of E-Destinations.

Ans: Goibibo, MakeMyTrip, Yatra, TripAdvisor.

5. Is E-tourism is eco-friendly practices?

Ans: Yes, because it reduces paper usage, promotes digital tickets, and supports sustainable travel planning.

FILL IN THE BLANKS

1. **E-tourism** is helpful in buying and selling of tourism products. (E-tourism/ **E-mail**)
2. Accessibility consists of transport which is managed using **ICT**. (ICT/Calls)
3. E-Tour operators promote their products and attract customers using **websites** and **apps**. (websites/web series)
4. E-travel agencies act as intermediaries between **customers** and **service providers**. (Government/customer)
5. E-tourism is beneficial for both **tourists** and **tourism businesses**. (Government/tourists)

TRUE / FALSE STATEMENTS

1. E-tourism applies ICTs to maximize the efficiency and effectiveness of the tourism organization. Ans: **True**
2. The online payment gateways are available working hours basis. Ans: **False**
3. E-tourism is unable to break down geographical barriers. Ans: **False**
4. After the COVID-19 pandemic, tourism industry focuses more on hygiene and safety. Ans: **True**
5. Booking engines increase cost for travel businesses. Ans: **False**

MULTIPLE CHOICE QUESTIONS

1. E-Tourism refers to:

a) Booking tickets online b) Virtual tourism c) Tourism services via internet d) All of these

2. Which is NOT a component of E-Tourism?

a) Online booking b) Travel packages c) Physical cash payment only d) Virtual tours

3. Emerging trend in E-Tourism is:

a) Virtual Reality Tours b) AI-based recommendations
c) Mobile Apps d) All of these

4. Which of the following is an example of E-Tourism platform?

a) MakeMyTrip b) Yatra c) Expedia d) All of these

5. Advantage of E-Tourism is:

a) Saves time b) Convenience c) Wide choices d) All of these

Answer Key:

1. (d) 2. (c) 3. (d) 4. (d) 5. (d)

Two Marks Questions:

Q.1. What do you mean by E-tourism?

Ans. E-tourism also known as travel technology or “e-travel” refers to the application of digital technology in the tourism industry to plan, book, and manage travel experiences. By creating online platforms, e-tourism

connects tourists to a global network of services, such as accommodation and transport options, and gives them information on costing and also helps to customize their travel experiences.

Q. 2. What is E-Tourism Mix?

Ans: E-Tourism Mix is a combination of Tourism activities, business activities and Information and Communication Technologies. Thus, the E-Tourism mix consists of regular business functions like marketing and sales, finance, HRM, procurement, inventory management, and tourism activities such as transport, travel, hospitality, Leisure and the Information and Communication Technology used in maintaining and managing the tourism business.

Four Marks Questions:

Q. 1. Discuss any two emerging trends in E-tourism.

Ans: 1. Virtual Reality (VR) Tourism Trends

Virtual reality has been an emerging technology in a number of different sectors, but its role within the tourism industry is especially significant. VR headsets becoming more affordable and accessible to consumers worldwide. Individuals can now immerse themselves in virtual environments that simulate real-world destinations. For instance, rather than relying solely on images or videos when choosing a hotel or resort for their next vacation destination, potential tourists can now take virtual tours where they can explore rooms, facilities, and even the surrounding attractions. Through online VR tours, customers can experience hotel interiors, restaurant interiors, outdoor tourist attractions and many more things.

2. Internet of Things (IoT) Use in the Tourism Industry

The Internet of Things (IoT) is perceived as an evolving trend in the tourism industry, with the potential to change its dynamics. IoT will help destinations, airlines, hotels and cruises personalise their services for tourists and guests. Moreover, it has several advantages for them, such as cost savings, increased productivity, greater efficiency and customised and differentiated services. For example, IoT technology can be used in hotel rooms to provide customers with a device that connects to everything from the lights, to the heaters and air conditioning, allowing all to be controlled from one place. In airports, meanwhile, luggage cases can be installed with sensors that will alert passengers when they pass by.

Q. 2. What is E-tourism? Give in brief various features of E-tourism.

Ans. E-tourism also known as travel technology or “e-travel” refers to the application of digital technology in the tourism industry to plan, book, and manage travel experiences. By creating online platforms, e-tourism connects tourists to a global network of services, such as accommodation and transport options, and gives them information on costing and also helps to customize their travel experiences.

Some of the salient features of e-tourism are described as under:

- 1. Cost Effectiveness:** Cost effectiveness is one of the main features of e-tourism. E-tourism affects prices. Services are sold directly to consumers in e-tourism which eventually reduces their cost.
- 2. Direct Interaction:** Another feature of e-tourism is the direct interaction between the service provider and the consumer. They trade directly with each other. Thus, it saves time and money.
- 3. Suitable for Service Providers and Consumers:** E-tourism is suitable for service provider as well as consumers. In today's consumer market, consumers purchase only those services which satisfy their needs. Hence, service has to be done as per the needs, desires, likes and dislikes of consumers. E-tourism helps a great deal to both service providers and consumers in this direction.
- 4. Marketing Experience:** In e-tourism a consumer can open any website related to services of e-tourism and can acquire every type of information relating to the service which he wants to avail and can compare its features and prices with other such services available in the market.

Chapter: 14

E-Trading Securities

One Mark Questions:

ONE LINE / ONE WORD QUESTION ANSWERS

1. What is e-trading securities?

Ans: Buying and selling of securities (shares, stocks, bonds) through electronic platforms using the internet.

2. How many depositories are there in India?

Ans: Two.

3. Give names of depositories in India.

Ans: NSDL (National Securities Depository Limited)
CDSL (Central Depository Services Limited)

4. Write the name of leading stock exchange of India?

Ans: BSE (Bombay Stock Exchange) and NSE (National Stock Exchange).

5. What is traditional trading securities?

Ans: Buying and selling of securities physically through brokers, requiring paperwork and face-to-face transactions.

FILL IN THE BLANKS

1. E-Trading securities is the service offered on the **internet** for the sale and purchase of shares, stocks etc. (floor/internet)
2. BSE developed online trading system in **1995**. (1995/2005)
3. DDoS stands for **Distributed Denial of Service**. (Disturbed/Distributed)
4. There are **two** participants in e-trading securities in exchanges. (three/two)
5. **BSE and NSE** are largest stock exchanges in our country India. (NSE/OTCEI)

TRUE / FALSE STATEMENTS

1. Depository participants provide the services of dematerialisation of shares. Ans: **True**
2. Traditional trading securities works through internet. Ans: **False**
3. There is lesser liquidity in e-trading securities. Ans: **False**
4. E-trading securities have more paper work, greater time of transaction settlement process. Ans: **False**
5. E-trading securities protects from cyber attacks. Ans: **False**

MULTIPLE CHOICE QUESTIONS

1. E-Trading Securities refers to:

a) Buying & selling of securities online b) Offline trading
c) Only government bonds d) None of these

2. Example of E-Trading platform in India:

a) Angel One b) Upstox c) Groww d) All of these

3. Which is NOT a type of E-Trading security?

a) Shares b) Bonds c) Mutual Funds d) Cash

4. Advantage of E-Trading is:

a) Faster transactions b) Lower brokerage c) Transparency d) All of these

5. Limitation of E-Trading is:

a) Technical failures b) Cyber fraud c) Internet dependency d) All of these

Answer Key:

1. (a) 2. (d) 3. (d) 4. (d) 5. (d)

Two Marks Questions:

Q. 1. What is the meaning of e-trading securities?

Ans. Online trading or E-Trading Securities is that part of e-commerce which specializes in financial services. It deals in corporate paper (e.g., stocks and shares) the purchase of commodities and currencies. In other words, “Online Trading is a service offered on the Internet for the purchase and sale of shares”.

Q. 2. Write any two benefits of e-trading securities.

Ans. **1. Reduced Cost of Transactions:** By automating as much of the process as possible (often referred to as “straight-through processing” or STP), costs are brought down. The goal is to reduce the incremental cost of trades to as close to zero as possible, so that increased trading volumes don’t lead to significantly increased costs. This has translated to lower costs for investors.

2. Greater Liquidity: Electronic systems make it easier to allow different companies to trade with one another, no matter where they are located. This leads to greater liquidity (i.e. there are more buyers and sellers) which increases the efficiency of the markets.

Four Marks Questions:

Q. 1. Write some key operational aspects of e-trading securities.

Ans: Here are the key operational aspects of e-trading securities:

1. **Trading platforms:** E-trading securities occurs on electronic platforms like stock exchanges (i.e. NSE and BSE). These platforms facilitate the execution of trades, real-time market data and order management.
2. **Order Types:** Traders can place various types of orders, including market orders, limit

orders, stop orders and more each with specific conditions for execution.

3. **Market Participants:** This includes retail investors, institutional investors, market makers and high frequency traders (HFTS), each plays a role in market liquidity and price discovery.
4. **Clearing and settlement:** When a trade is executed after that clearing houses facilitate the confirmation and settlement of trades, ensuring that securities and funds are exchanged properly.
5. **Risk management:** Traders and firms use various risk management tools to manage exposure to market risks, including stop-loss orders, margin requirement and hedging strategies.

Q. 2. Write any four features of e-trading.

Ans.

1. **Demat and Trading Accounts:** For e-trading you need Demat and Trading accounts to invest in stock markets. Demat holds your shares electronically, while trading account allows you to buy and sell securities. A trading account is linked to your bank account via which you can buy or sell securities.
2. **Trading Platforms:** You need online trading platforms accessible via desktops, laptops, or mobile devices. These platforms provide real-time market data, advanced charting tools, and order execution capabilities, enabling traders to make informed decisions.
3. **Variety of Financial Instruments:** Trading accounts facilitate the buying and selling of various financial instruments such as stocks, bonds, mutual funds, exchange-traded funds (ETFs), options, futures, and currencies.
4. **Security Measures:** Trading accounts prioritize security, implementing robust encryption protocols and authentication processes to safeguard users' sensitive information and funds from cyber threats and unauthorized access.

Q. 3. What are the limitations of E-Trading Securities?

Ans. Some problems and demerits of e-trading are discussed as under:

1. **Risk of overinvesting.** Online trading is easy and fast. The trader has to just click some choices with finger or cursor. The trader uses his real money and sometimes there is a risk that the novice trader, in hurry or in an impulse, makes overinvestment in a particular trade and has to repent later on. Sometimes the novice online investors mistakenly assume that a trade is not completed and they make the trade again. Thus they invest twice as much as they intended.
2. **Risk of making poor investment choices.** In e-trading sometimes because of lack of knowledge and research the traders particularly who are new in the field of e-trading make investment in poor choices.
3. **Absence of personal relationships with brokers.** As the online traders may not be a broker around to help them make knowledgeable choices they are at their own and if they have not done good research of the market they may make unfruitful investments.
4. **Dependence on internet.** Online trading depends fully on the working and connectivity of internet. If the internet connection is unstable, slow or is interrupted during trading the trader may lose a good deal or trade.

Q. 4. Write the important advantages of e-trading securities?

Ans.

1. **Reduced Cost of Transactions:** By automating as much of the process as possible (often referred to as "straight-through processing" or STP), costs are brought down. The goal is to reduce the incremental cost of trades to as close to zero as possible, so that increased trading volumes don't lead to significantly increased costs. This has translated to lower costs for investors.
2. **Greater Liquidity:** Electronic systems make it easier to allow different companies to trade with one another, no matter where they are located. This leads to greater liquidity (*i.e.* there are more buyers and sellers) which increases the efficiency of the markets.
3. **Greater Competition:** While e-trading hasn't necessarily lowered the cost of entry to the financial services industry, it has removed barriers within the industry and had a globalization style competition effect. For example, a trader can trade in future on Eurex, e-CBOT or LIFFE at the click of a button. He doesn't need to go through a broker or pass his orders to a trader on the exchange floor.
4. **Increased Transparency:** E-trading has made markets less opaque. It's easier to find out the price of securities when that information is flowing around the world electronically.

CASE STUDIES

Unit I: Fundamentals of Computer

Ravi is preparing a multimedia presentation for his school project. He uses a computer to compile images, videos, and audio clips. He installs multimedia software and connects devices like speakers and a webcam. While working, he notices the computer slows down when handling large files. He wonders about the limitations of his system and the future of computing technologies that might solve these issues.

Questions:

1. Which component is most likely causing Ravi's computer to slow down?
 - A. CPU
 - B. RAM
 - C. Hard Disk
 - D. Graphics Card
2. Which of the following is NOT a multimedia device?
 - A. Microphone
 - B. Printer
 - C. Webcam
 - D. Speaker
3. What is a key limitation of traditional computers in multimedia processing?
 - A. Lack of portability
 - B. Limited storage
 - C. Low processing speed
 - D. Incompatibility with software
4. Which future computing trend could help Ravi handle large multimedia files more efficiently?
 - A. Quantum Computing
 - B. Green Computing
 - C. Cloud Storage
 - D. Robotics
5. Fill in the blank:
Multimedia software like _____ helps in editing and compiling video content.
 - A. MS Word
 - B. Adobe Premiere
 - C. Excel
 - D. PowerPoint
6. One-line answer:
What is the scope of multimedia in education?
 - A. Interactive learning
 - B. Data analysis
 - C. Hardware testing
 - D. Programming

Unit II: Fundamentals of Internet

Priya wants to launch a blog to share her travel experiences. She sets up an email account, registers a domain name, and uses a web browser to access her blog. She learns about protocols like HTTP and FTP and uses search engines to optimize her content. She faces challenges with slow internet and spam emails.

Questions:

1. Which protocol is used to transfer files to Priya's blog server?
 - A. HTTP
 - B. FTP
 - C. SMTP
 - D. POP3
2. What is the role of a search engine in Priya's blogging activity?
 - A. Hosting her blog
 - B. Securing her website

- C. Improving visibility
 - D. Sending emails
- 3. Which of the following is a limitation of email communication?
 - A. Instant delivery
 - B. Spam and phishing
 - C. Costly service
 - D. Lack of attachments
- 4. What does URL stand for in web terminology?
 - A. Universal Routing Link
 - B. Uniform Resource Locator
 - C. Unique Reference Label
 - D. Unified Retrieval Language
- 5. Fill in the blank:
Priya uses _____ to navigate between pages on her blog.
 - A. FTP
 - B. Web Browser
 - C. ISP
 - D. Server
- 6. One-line answer:
What is a key requirement for accessing the internet?
 - A. ISP
 - B. Antivirus
 - C. Printer
 - D. Scanner

Unit III: Information Technology

A startup is exploring new technologies to improve its operations. They consider using Artificial Intelligence for customer service, Cloud Computing for data storage, and Robotics for automation. They are concerned about the limitations and ethical implications of these technologies.

Questions:

- 1. Which technology enables remote access to data and applications?
 - A. Robotics
 - B. Cloud Computing
 - C. Green Computing
 - D. Quantum Computing
- 2. What is a major advantage of Artificial Intelligence in business?
 - A. Manual data entry
 - B. Predictive analytics
 - C. Increased paperwork
 - D. Reduced automation
- 3. Which of the following is a limitation of Information Technology?
 - A. Enhanced communication
 - B. Security risks
 - C. Faster processing
 - D. Better storage
- 4. What does Green Computing primarily aim to reduce?
 - A. Software bugs
 - B. Energy consumption
 - C. Data redundancy
 - D. Hardware cost
- 5. Fill in the blank:
_____ is used to simulate human intelligence in machines.
 - A. Robotics
 - B. Cloud Computing
 - C. Artificial Intelligence

- D. Quantum Computing

6. One-line answer:

What is the scope of Information Technology in modern business?

- A. Automation and efficiency
- B. Manual labor
- C. Traditional filing
- D. Paper-based systems

Unit IV: E-Governance

The local government launches an e-governance portal for citizens to access services like tax filing, certificates, and grievance redressal. It uses DigiLocker for document storage and applies cyber laws to protect user data. Citizens are educated about cyber threats and safe digital practices.

Questions:

1. Which pillar of e-governance ensures transparency in public services?

- A. Infrastructure
- B. Connectivity
- C. Information
- D. Interaction

2. What is a key function of DigiLocker?

- A. Online shopping
- B. Document storage
- C. Social networking
- D. Tax calculation

3. Which of the following is a cyber security threat?

- A. Encryption
- B. Phishing
- C. Authentication
- D. Firewall

4. What type of e-governance involves interaction between government and citizens?

- A. G2B
- B. G2C
- C. B2B
- D. C2C

5. Fill in the blank:

Cyber laws in India are governed by the _____ Act.

- A. IT
- B. RTI
- C. GST
- D. IPC

6. One-line answer:

What precaution should be taken while using DigiLocker?

- A. Use strong passwords
- B. Share login details
- C. Disable encryption
- D. Avoid updates

Unit V: E-Business in India

An entrepreneur launches an online marketplace offering handmade products. She uses a B2C model and integrates secure payment gateways. She studies legal provisions and market trends in India. She faces challenges like logistics, digital literacy, and regulatory compliance.

Questions:

1. Which model best describes selling directly to consumers online?
 - A. B2B
 - B. B2C
 - C. C2C
 - D. G2C
2. What is a key difference between E-Business and E-Commerce?
 - A. E-Business includes offline operations
 - B. E-Commerce excludes payments
 - C. E-Business is only for government
 - D. E-Commerce is not digital
3. Which legal provision is essential for online business in India?
 - A. Companies Act
 - B. IT Act
 - C. Income Tax Act
 - D. Consumer Protection Act
4. What is a major opportunity for E-Business in India?
 - A. High illiteracy
 - B. Growing internet users
 - C. Poor infrastructure
 - D. Limited mobile access
5. Fill in the blank:
_____ is a secure payment method used in E-Business.
 - A. Cash on delivery
 - B. Net banking
 - C. Cheque
 - D. Postal order
6. One-line answer:
What is a key element of E-Business?
 - A. Digital transactions
 - B. Manual billing
 - C. Offline marketing
 - D. Paper invoices

Unit VI: Digital Currency and Payments

A tech-savvy user begins using digital currency for online purchases. He explores types like cryptocurrency and central bank digital currency. He appreciates the speed and convenience but worries about volatility and security. He compares digital wallets and learns about transaction limits.

Questions:

1. Which type of digital currency is decentralized and uses blockchain?
 - A. CBDC
 - B. Cryptocurrency
 - C. Digital Rupee
 - D. E-wallet
2. What is a major limitation of digital currency?
 - A. Instant transactions
 - B. Volatility
 - C. Global acceptance
 - D. Security protocols
3. Which of the following is NOT a digital payment method?
 - A. UPI
 - B. NEFT
 - C. Cheque
 - D. Mobile Wallet
4. What characteristic makes digital currency suitable for online use?
 - A. Physical form

- B. Anonymity
- C. Fast processing
- D. Manual verification

5. Fill in the blank:

_____ is a government-backed digital currency.

Unit : Digital Currency & Payments

Meera, a tech-savvy student, prefers paying tuition fees via digital wallets instead of cash. She experiments with cryptocurrencies like Bitcoin and government-backed digital currency. While she enjoys the speed and convenience, her parents worry about volatility and fraud risks. The college accepts UPI, debit cards, and mobile wallets, but not crypto. Meera debates whether digital currency will replace traditional money and how secure payment gateways can reduce fraud. The case highlights advantages, limitations, and types of digital payments in India's growing cashless economy.

MCQs:

1. Which of the following is an example of digital currency?
(a) Bitcoin (b) Rupee note (c) Gold coin (d) Cheque
2. Which payment method is accepted by Meera's college?
(a) UPI (b) Crypto (c) Barter (d) Cash only
3. What is the main advantage of digital payments?
(a) Speed (b) Delay (c) Manual effort (d) Paper use
4. What is the main limitation of cryptocurrency?
(a) Volatility (b) Stability (c) Fixed value (d) No fraud
5. What concern do Meera's parents have?
(a) Fraud risk (b) Easy access (c) Transparency (d) Government support
6. What does a secure payment gateway help reduce?
(a) Fraud (b) Paper bills (c) Manual work (d) Cash flow