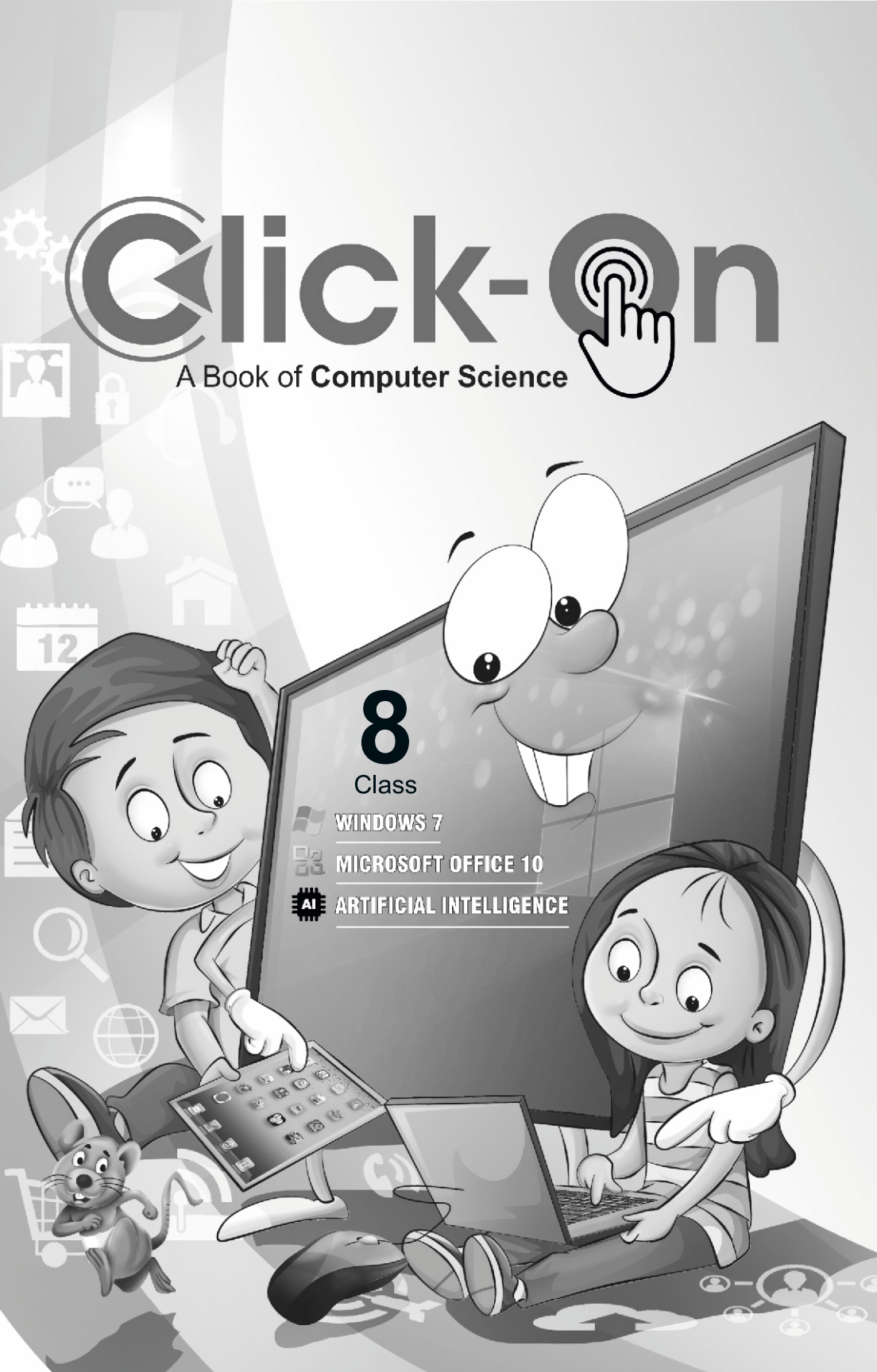


Click-On

A Book of **Computer Science**



8

Class



WINDOWS 7



MICROSOFT OFFICE 10



ARTIFICIAL INTELLIGENCE

Chapter 1

A. Tick (✓) the right answers :

1. Blue colour 2. Hub 3. Modem
4. Wide Area 5. Wi-Fi(SMTP)

B. Fill in the blanks using numbers from the box :

1. network 2. Bluetooth 3. PAN
4. hyperlink 5. 32 6. Protocol

C. Write 'T' for True or 'F' for False :

1. False 2. True 3. False
4. False 5. False

D. Answer the following :

1. A computer network can be defined as a group of computers and other peripheral devices that are linked together for the purpose of sharing data and hardware resources.
2. Transmission medium plays an important role in a computer network as it is used to transfer data from one location to another using wires or without wires.

3.

S.No.	MAN	WAN
1.	MAN stands for Metropolitan Area Network.	WAN stands for Wide Area Network.
2.	MAN is a larger network than LAN as it covers an area of a few hundred kilometers in a city.	WAN connects two or more computers located at distant places.
3.	Cable Television, branches of a local bank in a city are some examples of MAN.	Telecom System is the most common example of WAN.

4. A coaxial cable consists of central copper wire surrounded by insulation and then a shield of braided wire. It is mostly used in the transmission of video, communication signals and audio. The main difference between the two types of coaxial cable are:

Baseband Coaxial Cable	Broadband Coaxial Cable
It supports quick transmission of a single signal at a time.	It supports transmission of multiple signals at a time.

5. The main differences between Bluetooth and Infrared technology are:

S.No.	Bluetooth Technology	Infrared Technology
1.	It is a communication technology that uses low power radio waves to connect electronic devices wirelessly.	It is a short range communication technology that covers approximately 5 meters of distance.
2.	It is mainly used for personal area networks with a maximum transmission range of upto 240 meters.	It is used to exchange information between computers, cellular telephones and faxes.

6. DNS is an acronym of Domain Name System. It is the system in which domain names are translated into Internet Protocol(IP) addresses. In simple words, it serves as a directory for the web by locating and addressing devices in the worldwide network. A domain name consists of two parts: Domain and Web extension. The name of the domain comes before the dot symbol and the extension comes after it. For example, gmail.com where gmail is the domain name and .com is the web extension.

7. Switch plays an important role in a computer network as it contains many ports to connect different network segments. When a network contains a large number of devices, switches are used to maintain the speed of the communication between devices.

8. (i) **Wi-Fi** : Wi-Fi stands for Wireless Fidelity. It creates a Wireless Local Area Network that uses radio waves to send information.

(ii) **IP Address** : An IP address consists of a unique set of numbers which is provided to each computer by IETF. It is used to access the webpage instead of typing the Domain Name. An example of IP address is 205.198.0.1.

(iii) **URL** : URL is an acronym of Uniform Resource Locator. It denotes the address of a webpage or a website. To open a webpage, its URL is entered in the address bar of a web browser.

9. (i)

S.No	FTP	SMTP
1.	FTP or File Transfer Protocol is a standard Internet Protocol.	SMTP or Simple Mail Transfer Protocol is the most common protocol.
2.	It is used to exchange files between two or more computers on the Internet.	It is used for sending e-mails between two or more servers.

(ii)

S.No	HTTP	TCP/IP
1.	HTTP or Hyper Text Transfer Protocol determines how different forms of information get transferred to your screen over the Internet.	TCP/IP(Transmission Control Protocol/Internet Protocol) is a suite of communication protocols that is used to connect various computers on the Internet.
2.	It is responsible for sending an HTTP command to the server requesting it to open the specified webpage.	It is responsible for dividing the data into packets at the sender's side and for assembling these packets at their correct destination.

E. Application Based Questions :

1. She can use Bluetooth for the same.
2. Wide Area Networking is best for Mr. Nanda's requirement.
3. All the computers are connected through Local Area Networking in the School Computer lab.

Chapter 2

A. Tick (✓) the right answers :

1. DBMS
2. .accdb
3. Forms
4. Text
5. Record Navigation Bar
6. DataSheet

B. Fill in the blanks using numbers from the box :

1. database
2. fields
3. record
4. 65,536
5. autonumber
6. Hyperlink
7. toggle

C. Write 'T' for True or 'F' for False :

- | | | | |
|---------|---------|----------|---------|
| 1. True | 2. True | 3. False | 4. True |
| 5. True | 6. True | 7. True | |

D. Define the following terms :

Tables: A table is a database object which is used to store information in an organised manner.

Data: A set of characters that represents a valid value is known as data. For example, 101, Computer etc.

Reports: Reports are used to display the selected data in a printable format. Reports collect the summarised data from one or more tables and organise it in a printable format.

E. Answer the following :

1. DBMS stands for Database Management System. It is an application software which is used to create, modify and extract data from a database. It manages and organises the records in the form of tables.
2. The four features of MS Access are:
 - (a) Duplication of data is reduced.
 - (b) Access provides the facility to break large information into smaller parts so that information can be easily accessible.
 - (c) Access increases the efficiency, speed and flexibility in searching and accessing information.
 - (d) Data sharing is easy in MS Access.
3. There are mainly two types of database:
 - (a) Flat File Database: A flat file database refers to data files that contain records which have a small, fixed number of fields without any structured relationship.
 - (b) Relational Database: A relational database stores data in several tables and links those tables together to get a common piece of information.
4. Design View is used to enter the field names, their data types and description whereas Datasheet View is used to enter data in a table.
5. We can set a Primary key in the table using the following steps:
 - (a) Right click on the field and select the Primary key option from the Context menu.
 - (b) The field will be set as the Primary key indicated by a small key in the Field Selector column.
 - (c) Click on the Close button on the Table window.
 - (d) Access prompts a message window reminding us to save changes.
 - (e) Click on the Yes button to save the changes.

6. We should follow the given steps to add a new field in the existing table using DataSheet View:
 - (a) Open a table in DataSheet View. Right-click on the field name where we want to insert a field. The context menu appears.
 - (b) Select the Insert Field option.
 - (c) The new field named as Field 1 will be inserted before the selected field.
7. DataSheet View and Design View are the two types of views in which a table can be displayed.

F. Application Based Questions :

1. She will use Ctrl+W key combination for the same.
2. He should right click on the Employee Id field and select the Primary key option from the context menu.

Chapter 3

A. Tick (✓) the right answers :

- | | | |
|-----------------|--------------------|----------------|
| 1. Action query | 2. Parameter query | 3. Design View |
| 4. Three | 5. Design tab | |

B. Fill in the blanks using numbers from the box :

- | | | |
|----------------|-----------|---------------|
| 1. criteria | 2. or | 3. Sort |
| 4. design grid | 5. report | 6. Design tab |

C. Write 'T' for True or 'F' for False :

- | | | | |
|---------|----------|----------|----------|
| 1. True | 2. False | 3. True | 4. False |
| 5. True | 6. True | 7. False | 8. False |

D. Answer the following :

1. A Query is a database object that helps us to retrieve and view information from one or more database tables that meet a specific condition or defined criterion.
2. Criteria is a property in MS Access that contains the condition on the basis of which the records will be filtered in the Query output.
3. The five types of Queries in MS Access are: Select, Crosstab, Parameter, Action and SQL.
4. A form is an easy and organised way to add and update data in one record at a time in a table.
5. Yes, it is possible to extract information based on more than one condition in a single query by specifying the multiple conditions in the Criteria row of the Design grid and the data will be filtered accordingly in the query output.

E. Application Based Questions :

1. He can assign Primary key to the field that he wants to make common in both tables.
2. She can use the following method to apply criteria:
 - (a) Double-click on the Percentage field and click on the Sort property in the Percentage field and set it in the Ascending order.
 - (b) Click on the Save button available on the Quick Access Toolbar to save the query.

Chapter 4

A. Tick (✓) the right answers :

- | | | |
|---------|---------------|----------------|
| 1. CC | 2. Triangle | 3. Options bar |
| 4. .psd | 5. Magic Wand | 6. Ctrl+D |

B. Fill in the blanks using numbers from the box :

- | | | |
|-------------|------------------------|----------------|
| 1. swatches | 2. Content Aware Patch | 3. tools panel |
| 4. crop | 5. Move | 6. Gradient |

C. Write 'T' for True or 'F' for False :

- | | | | |
|---------|----------|---------|----------|
| 1. True | 2. False | 3. True | 4. False |
| 5. True | | | |

D. Answer the following :

1. Photoshop is a graphics editing program developed by Adobe Systems. It is widely used by millions of graphic artists, web developers, photographers etc.

The three important features of Photoshop are:

- (a) User-friendly Interface
- (b) Efficient Photo editing with very little effort.
- (c) Powerful tools.

2. The three kinds of Lasso tool are:

- | | |
|-------------------------|--------------------------|
| (a) Lasso Tool | (b) Polygonal Lasso Tool |
| (c) Magnetic Lasso Tool | |

3. The Crop Tool is used to select a specified area that we want to focus and remove the unwanted parts outside the selected area of a picture.

4. The Gradient Tool is used to fill an area with a range of colours in a specified pattern whereas the Move tool is used to drag a selected part of an image to a new location in the image.

E. Application Based Questions:

1. She can use Crop tool for the same.
2. She will use Gradient tool for the same.

Chapter 5

A. Tick (✓) the right answers :

- | | | |
|-----------------------|-----------------|--------------|
| 1. Alt | 2. Spacebar key | 3. Brush |
| 4. Create Warped Text | | 5. Hand Tool |
| 6. Adjustments | | |

B. Fill in the blanks using numbers from the box :

- | | | |
|------------------------|-----------------|----------------------|
| 1. retouching, editing | 2. Mixer Brush | |
| 3. caps lock | 4. black, white | 5. Color Replacement |
| 6. patch | 7. hand, zoom | |

C. Write 'T' for True or 'F' for False :

- | | | | |
|---------|----------|----------|----------|
| 1. True | 2. False | 3. False | 4. False |
| 5. True | 6. False | 7. True | |

D. Answer the following :

1. Painting tools are used for making different kinds of drawings. The five painting tool in Photoshop CC are:
 - (a) Brush Tool
 - (b) Pencil Tool
 - (c) Color Replacement Tool
 - (d) Mixer Brush Tool
 - (e) Gradient Tool
2. Spot Healing Brush Tool is used to repair imperfections like blemishes, dark spots, scratches or other unwanted elements from an image whereas we have to define a source point over an imperfection in the Healing Brush Tool.
3. Warp Text option is used to position the letters or text in different shapes.
4. Mixer Brush tool allows us to paint in a more realistic way by mixing colors on the Canvas, combining colors on a brush and varying paint wetness across a stroke. We will apply this tool on an image by following the given steps:
 - (a) Right click on the Brush Tool and select Mixer Brush Tool.
 - (b) Press the Alt key from the Keyboard and click on a point in the image from where we want to load the paint for the brush.
 - (c) We will observe the Current Brush Load Swatch in the Options bar. Now, drag the mouse pointer on the image to paint with a mixture of current brush load and the existing color of the image.
5. Navigation tool in Photoshop is basically used to view the image. The two types of Navigation tools are:
 - (a) Zoom Tool: This tool allows us to zoom in by clicking the Zoom tool on the image to view its magnified size or zoom

- with string values, in such a case, it concatenates the string values. For example, Output of 10+20 is 30 whereas output of 'Artificial' + 'Intelligence' is 'ArtificialIntelligence'
5. 'If' statement is used to evaluate only one condition whereas 'if...else' control structure is used when either of the two different actions are to be performed depending on the result of the conditional expression.

Chapter 7

A. Tick (✓) the right answers :

1. Looping 2. For 3. In 4. While
5. For

B. Fill in the blanks using numbers from the box :

1. loops 2. two 3. control 4. counter

C. Write 'T' for True or 'F' for False :

1. False 2. False 3. True 4. True

D. Answer in one word :

1. Looping Statements 2. For and While Loops.
3. In and Not in 4. Control Variable

E. Answer the following questions :

- Iterative statements, also known as Looping statements, are those statements that keep repeating themselves as long as the given condition is true.
- (a) **For Loop:** In Python, for loop is used when we are sure about how many times a loop body will be executed. It is also known as a definite loop.
(b) **While loop:** The While loop is simplest among all the looping structures as it keeps on executing the block of statement as long as the specified test condition evaluates to true. In general, while loop can be applied to a program where the number of iterations is not known.
- In Python, membership operators are used to control the working of a loop. The two types of membership operators are in and not in.

Chapter 8

A. Tick (✓) the right answers :

1. News Aggregator 2. Appy Pie 3. Entertainment app
4. E- Commerce 5. Both of these

B. Fill in the blanks using numbers from the box :

1. Hybrid Apps 2. App 3. permissions
4. social networking 5. flipkart 6. Desktop
7. Banking

C. Write 'T' for True or 'F' for False :

1. False 2. False 3. True 4. True 5. False

D. Answer the following :

1. The word 'App' is an acronym of Application which can be broadly categorised as:

(a) Desktop Apps: These apps can be used on a Desktop or a laptop. Generally, they do not need web access and run independently on a computer.

(b) Web Apps: Web apps are usually browser based applications and these apps are stored on a remote server, thus internet connection is the basic requirement of web apps.

(c) Mobile apps: Mobile apps have responsive web designs and are usually smaller in size because mobile devices have limited memory. These apps run on a smartphone or a tablet.

2. Facebook and Whatsapp are the most popular social networking apps. The detailed description of these apps are as follows:

(a) Facebook: Facebook allows all the registered users to create their profile, post comments, exchange information, share links, photographs, chat etc. While initially, it was PC based, now it is available as a pre-installed app on most of the mobile phones and tablets.

(b) Whatsapp: Nowadays, Whatsapp, an instant messaging app which initially started as a text messaging app. Now, it offers a facility of high quality voice calling and video calling. It has a simple interface and many useful features that make it a very popular app.

3. Native apps are usually developed for a specific operating system and device whereas Hybrid apps combine the features of both web apps and native apps.

4. The difference between Desktop app and mobile app are summarised in the table given below:

S.No.	Desktop Apps	Mobile Apps
1.	Desktop apps are those apps that do not need web access and run independently on a computer.	Mobile apps have responsive web designs to adapt to the much smaller screen sizes and orientation of the mobile devices.
2.	These apps can be used on a desktop or a laptop.	These apps run on a smartphone or a tablet.
3.	Photoshop, Pixlr are some examples of Desktop apps.	Google Play Store, Facebook, Instagram are some examples of Mobile apps.

5. We can download and install an app from Google Play Store using the following given steps:
 - (a) Tap on the Play Store icon on the screen of our device.
 - (b) Type the name of the app in the Search bar that we want to install.
 - (c) It will display the relevant list of apps. Now, select the most suitable one by tapping on the name of the app.
 - (d) Tap the Install button to install the app on our device. The app will prompt a permission box to access specific information from our phone. Confirm our consent and the app will be downloaded and installed on our phone.
 - (e) The app is now ready to use.
6. Entertainment apps comprise a wide range of interactive activities from purely leisure apps (music, playing games) to communication apps (social media, streaming media, instant messaging). BookMyShow is an entertainment app through which we can obtain tickets for Plays, Concerts, Sports and many other events.

E. Application Based Questions :

1. She must install educational apps for competitive exams on her phone for the same.
2. She can use Facebook for the same.

Chapter 9

A. Tick (✓) the right answers :

- | | | |
|-------------|---------------|----------|
| 1. HREF | 2. Relative | 3. Float |
| 4. Autoplay | 5. Video file | 6. Src |

B. Fill in the blanks using numbers from the box :

- | | | |
|-------------|-----------|-----------------|
| 1. | 2. Alt | 3. Hyperlinking |
| 4. internal | 5. Frames | 6. border-style |

C. Write 'T' for True or 'F' for False :

- | | | |
|----------|----------|----------|
| 1. False | 2. False | 3. False |
| 4. True | 5. True | 6. True |

D. Answer in one word :

- | | | |
|-----------------------|-----------------------|------------|
| 1. tag | 2. Alt attribute | 3. <A> tag |
| 4. <HREF> tag | 5. AutoPlay attribute | |
| 6. Border-Style: None | | |

F. Application Based Questions :

1. She should use Alt attribute for the same.
2. He should use <A HREF> tag for images and <VIDEO> tag for video clips.

E. Answer the following :

1. The tag is used to add images in an HTML document. The different attributes of tag are SRC, Height, Width, Float, Alt etc.
2. The Alt attribute displays text as an alternative to the image. Sometimes, a browser on the user's computer does not display images due to some reasons. In such a case, we can display the text to describe the image.
3. We can link web pages in an HTML document using the linking feature. This feature is called Hyperlinking. The two types of linking are:
 - (a) Internal linking: When one part of a web page is linked to another section on the same page, it is called Internal Linking.
 - (b) External Linking: When one page is linked to another webpage or website, it is called external linking.
4. We can insert audio and video clips in our HTML document using the following code:

```
<HTML>
<HEAD>
<TITLE>Audio and Video Clips</TITLE>
<BODY>
</HEAD>
<AUDIO CONTROLS SRC = "AUDIO.MP3">
</AUDIO>
<VIDEO CONTROLS SRC = "VIDEO.MP4">
```

</VIDEO>
</BODY>
</HTML>

5. Frames allow us to present multiple HTML documents as independent windows within one browser window.
This gives greater flexibility in designing and maintaining our website.

Chapter 10

A. Tick (✓) the right answers :

1. Perception 2. Three 3. Time Consuming
4. Artificial Vision 5. Computer Vision

B. Fill in the blanks using numbers from the box :

1. 1956 2. Perception 3. deep blue
4. Alexa 5. Google translator

C. Write 'T' for True or 'F' for False :

1. True 2. True 3. False
4. False 5. True 6. True

D. Match the following:

S.No.	Column A	Column B
1.	Biometric System	An AI system based on Data Domain.
2.	Defect Detection	An AI system based on Computer Vision
3.	Google Translator	An AI system based on NLP technique.
4.	Google Home	An AI system based on Speech Recognition technology.

E. Answer the following questions :

1. The three domains of AI plays an important role in the systems based on AI technology. The detailed description of these domains are as follows:

(a) Data: Data is the heart of AI systems because no AI system can be developed or functional without adequate data. Sound, Images, Text, Video are the different types of data used in AI systems.

(b) Computer Vision: A discipline of teaching machines how to see and perceive the human world is known as Computer Vision.

- (c) **Natural Language Processing:** Natural Language Processing refers to the AI method of communication with an intelligent system using naturally written or spoken languages.
2. Yes, simple looking tasks are difficult for computers because computers work on the principle of Input-Process-Output Cycle. They have no brain for doing various simple tasks like understanding regional language, identifying objects.
3. (a) **Natural Language Generation:** Natural Language Generation refers to the process of creating meaningful phrases and sentences in the form of natural language from some internal representation.
- (b) **Natural Language Understanding:** An artificial intelligence language that uses computer software to recognize text or speech sentences is called Natural Language Understanding.
4. Yes, AI has become an essential part of our lives because it is widely used in banks, vehicles, e-commerce, business etc. For example, Chatbots. Eva, an HDFC chatbot are available for customers anytime without any human interference.

F. Application Based Questions:

1. AI has become an essential part of our daily life. Nowadays, this technology is widely used by organisations to reduce work pressure and enhance productivity in terms of perfection. For example, Flipkart, an e-commerce website uses AI technology to automate customer services in an efficient way.
2. Google Translator System and Alexa are the two AI systems based on NLP.

Model Paper I

A. Tick (✓) the right answers :

- | | | |
|-------------------------|------------------------|----------------|
| 1. Router | 2. IMAP | 3. Design View |
| 4. Vanishing Point tool | 5. Fiber Optic | |
| 6. Transitions | 7. Composite key | |
| 8. Or | 9. Content Aware Patch | |
| 10. Brush | | |

B. Fill in the blanks using numbers from the box :

- | | | |
|-----------------|--------------|---------------------|
| 1. Protocol | 2. Bluetooth | 3. Flat File |
| 4. Reports | 5. Three | 6. Primary, Foreign |
| 7. Thomas Knoll | 8. Marquee | 9. Foreground |
| 10. Tolerance | | |

C. Write 'T' for True or 'F' for False :

1. True 2. False 3. True 4. True 5. False
6. False 7. False 8. False 9. True 10. False

D. Match the following :

S.No.	Column A	Column B
1.	Gateway	Helps to connect different kinds of networks.
2.	Server	Helps to host a large number of websites.
3.	Modem	Helps to connect your Computer with Telephone Lines.
4.	Hub	Helps to connect different devices on your network.

E. Write the full form of the following :

1. ISP: Internet Service Provider
2. TCP/IP: Transmission Control Protocol/ Internet Protocol
3. FTP: File Transfer Protocol
4. SMTP: Simple Mail Transfer Protocol
5. SQL: Structured Query Language
6. CAN: Campus Area Network

F. Complete the following shortcut commands :

1. Shift + Tab key
2. Alt + F6 key
3. Ctrl + D key
4. Alt + F4 key
5. Shift + F2 key

G. Answer in one word:

1. Record Navigation Bar
2. Powerful Vector Tools
3. Abhay Bhushan in 1970
4. Field
5. Hub
6. .psd
7. Field Properties Area
8. Design View
9. Hand Tool

H. Answer the following:

1. TCP/IP is a suite of communication protocols used to connect various computers on the Internet. It provides end-to-end data communication specifying how data should be broken into pieces called packets, transmitted and routed from one network to another until they reach their destination.

2. RDBMS stands for Relational Database Management System. A relational database stores data in several tables and links those tables together to get a common piece of information. The two important features of RDBMS are:
 - (a) A relational database prevents data duplication.
 - (b) RDBMS organises data in the form of tables.
3. A Query is a database object that helps us to retrieve and view information from one or more database tables that meet a specific condition or defined criterion. Design Area and the Grid Area are the two main components of a Query Window in MS Access.
4. The three selection tools used in Adobe Photoshop CC are Rectangular Marquee Tool, Lasso Tool and Quick Selection Tool.

Model Paper II

A. Tick (✓) the right answers :

- | | | |
|-----------|-------------|---------------|
| 1. Class | 2. Error | 3. E-Commerce |
| 4. Frames | 5. Relative | |

B. Fill in the blanks using numbers from the box :

- | | | |
|----------------|------------|---------------------|
| 1. interactive | 2. print() | 3. control variable |
| 4. while | 5. mobile | 6. LinkedIn |
| 7. external | 8. Frames | 9. |
| 10. 1956 | | |

C. Write 'T' for True or 'F' for False :

- | | | | | |
|----------|----------|----------|----------|----------|
| 1. False | 2. False | 3. True | 4. False | 5. True |
| 6. True | 7. True | 8. False | 9. True | 10. True |

D. Answer in one word :

1. Repetitive or Looping statements
2. Script mode
3. Paytm
4. <A> tag
5. Anchor tag
6. Border-Style: None

E. Answer the following :

1. We can link web pages in an HTML document using the linking feature. This feature is called Hyperlinking.

The two types of linking are :

- (a) **Internal linking:** When one part of a web page is linked to another section on the same page, it is called Internal Linking.

(b) External Linking: When one page is linked to another webpage or website, it is called external linking.

2. Web apps are usually browser based applications and these apps are stored on a remote server, thus internet connection is the basic requirement of web apps whereas Hybrid apps combine the features of both web apps and native apps.
3. Social networking websites allow us to post images, videos and other updates to our profile which can be shared with anyone.
4. In the Interactive mode, statements are executed line by line giving the output instantaneously whereas Script mode is used to create and edit programs which are executed as a file and can be saved for later use.
5. Conditional statements are those statements which are used to change the order of program execution either by repeating or skipping the execution of few statements as per the given condition.

F. Write the code for the following programs using the Script mode :

1.

```
ch=input("Please enter the character as you wish: ")
if(ch=='a' or ch=='A' or ch=='e' or ch=='E' or ch=='i' or
   ch=='I' or ch=='o' or ch=='O' or ch=='u' or ch=='U'):
    print("The given character ",ch," is the vowel");
else:
    print("The given character ",ch," is consonant")
```
2.

```
n = int(input("Enter the value of 'n': "))
a = 0
b = 1
sum = 0
count = 1
print("Fibonacci Series: ", end = "")
while(count <= n):
    print(sum, end = "")
    count += 1
    a = b
    b = sum
    sum = a + b
```

G. Write the output of the following programs :

1. Syntax error
2. 3 4