Computer: A Wonder Machine

BOOK 5

Chapter 1

Evolution of Computers

1. Answer the following questions:

(a) The basic characteristics of a computer are:

(i) Speed
(ii) Reliability
(iii) Accuracy
(iv) Diligence
(v) Memory
(vi) Logical
(vii) Versatility
(viii) Automation

(b) Limitations of a computer are:

(i) Computer cannot work on its own.

(ii) Computer cannot take any decisions on its own.

(iii) Computer is emotionless.

(iv) Computer is not intelligent. Instructions have to be given to a computer to perform a task.

(c) Computer is also known as a versatile machine. We can use a computer to perform completely different types of work at the same time. For example, it can do simple mathematical calculations, complex evaluations, send and receive data, etc., all at the same time.

(d) Reliable means doing work properly and consistently without any failure. A computer is a reliable electronic machine. It processes data with high speed and accuracy.

(e) Being a machine, a computer does not suffer from the human traits of tiredness and lack of concentration. If millions of calculations are to be performed, it will perform all of them with the same accuracy and speed. A computer can perform diligently but if we ask it to think of any solution, it might not provide the solution because it cannot think. Therefore, we call a computer a diligent machine and not an intelligent machine.

2. Fill in the blanks:

(a) Abacus
(b) Napier's Bones
(c) Analytical Engine
(d) addition, subtraction
(e) processing
(f) Error
(g) tired
(h) Primary
(i) instructions

3. Tick (✓) the correct option:

(a) (i) Abacus
(b) (iv) the Chinese
(c) (iii) Multiplication
(d) (ii) Reliability
(e) (i) Pascal's Calculator
(f) (iv) Abacus
(g) (iii) 1642
(h) (i) About 50,000 parts
(i) (i) Secondary
(j) (iii) Charles Babbage

4. Write T for true and F for false statements:

(a) F (b) T (c) F (d) T (e) T
(f) T (g) F (h) T (i) F (j) F

Chapter 2
GUI Operating System—Desktop Management

1. Fill in the blanks:

(a) Operating System
(b) Icons
(c) Microsoft Taskbar
(d) Notification area
(e) Cortana

2. Tick (✓) the correct option:

(a) (iv) Graphical User Interface
(b) (iii) Taskbar
(c) (iii) Painting icons
(d) (iv) None of these
(e) (i) Programs

3. Answer the following questions:

(a) We can perform following operations on the desktop:

(i) Opening icons (ii) Moving icons
(iii) Arranging icons (iv) Setting wallpaper
(v) Setting screensaver

(b) The following terms are defined as:

(i) **Taskbar**–The bar located at the bottom of the screen is known as taskbar. It allows us to open programs through the Start button. Once we open a program, a small icon gets added to the taskbar. Therefore, we can view all programs currently open. On the left corner next to the Start button, it has Cortana search box and icons of pinned programs. On the right corner is the notification area where all the notifications are displayed. It also shows the current date and time on the right side of the taskbar.

(ii) **Quick Launch Bar**–Quick Launch Bar is a section on the Microsoft Taskbar that enables us to launch our program quickly. These are the shortcuts to open any program or application. It is located to the right of the Start button and to the left of any open programs.

(iii) **Shortcut menu**–A Shortcut menu appears when we right-click on any object. It displays all the commands related to an object selected.

(c) Some of the most important uses of taskbar are:

(i) The Cortana search helps us to get things done.

(ii) It allows us to easily switch between programs or windows.

(iii) It allows us to pin important programs or applications that can be accessed quickly.

(iv) The notification area displays the notifications and real-time information about our computer.

5. Find the words given below in the grid. Some words are spelt backwards. Have fun finding them!

A	B	E	E	R	A	W	D	R	A	H	O
P	B	O	X	Y	D	E	P	C	D	N	P
P	C	X	F	E	Q	W	L	N	I	P	E
L	E	D	X	Y	Z	E	N	L	X	H	R
I	E	E	M	O	P	X	G	E	T	X	A
C	F	S	M	A	R	G	O	R	P	W	T
A	G	K	G	N	O	X	P	R	T	G	I
T	H	T	R	C	E	T	I	Z	B	C	N
I	I	O	R	S	T	X	I	F	O	I	G
O	J	P	C	K	N	J	C	L	M	O	S
N	K	C	D	M	N	Q	O	I	Y	K	Y
S	T	S	P	I	S	X	N	O	P	Z	S
O	X	N	S	O	T	M	S	I	Z	G	T
F	R	N	T	B	C	N	X	Y	R	N	E
T	O	R	A	B	K	S	A	T	O	X	M
W	R	U	W	E	X	A	T	E	H	C	P
A	E	D	G	X	Y	T	I	O	R	K	Q
R	F	L	K	J	A	S	D	F	G	C	T
E	R	T	Q	S	O	F	T	W	A	R	E
I	N	S	T	R	U	C	T	I	O	N	S

Chapter 3
Types of Software

1. Answer the following questions:

(a) Software is a program that enables us to perform a specific task using the hardware.

Software are broadly divided into two main categories.

(i) **System Software**—System software is a set of one or more programs used to control the operation and coordinate the hardware and other application software. The system software performs the following functions:

- Communicates with hardware devices
- Monitors the usage of hardware devices
- Supports the development of application software
- Supports the execution of application software
- Some of the most commonly-used system software are:
  - Operating system
  - Language translators
  - Utility software, etc.

(ii) **Application Software**—Application software is a set of one or more programs designed to perform a specific task. These are designed according to the requirements of the user. Some of the most commonly-used application software are:

- Word processing software
- Spreadsheet software
- Database software, etc.

(b) Operating system is a vital component of the system software. OS is a set of programs that controls the resources of a computer.

The two most important objectives of an OS are:

- Making computer system convenient to users.
- Managing the resources of a computer by performing functions like:
  - Process management
  - Memory management
  - File management
  - Security

(c) Computer can only understand machine language, which is a string of 0s and 1s. Writing a program in machine language is difficult for the programmers. Therefore, the programmers use various other languages like C++, Visual Basic, etc., to

write computer programs. These programs are easily understood by us, but not by our computers. To make computers understand our programs, language translators are used.

(d) Short notes on the following utility programs are:

(i) **Scanning**—A computer virus is a computer program that can cause damage to a computer's software, hardware or data. It is referred to as a virus because it has the capability to replicate itself and hide inside other computer files. The software used for scanning such programs on our computer is known as Antivirus software.

(ii) **Disk Defragmenter**—Files on a computer are constantly being written, deleted or resized which leads to fragmentation. This is a natural process and occurs when files are broken up into pieces to fit on the disk. These pieces of files spread at different locations on the disk. It takes longer to read and write on these file pieces. Fragmentation also leads to slow speed of the computer.

To overcome these problems, we should defragment our disk. For this, we can use the Disk Defragmenter tool. This tool is used to reorganize file fragments on a hard disk drive to increase performance.

(iii) **Disk Cleanup**—This tool is used to remove unimportant files on a hard disk drive.

(iv) **Backup**—Backup refers to copying of computer data and storing it at a safe place. We should take backup of our important files on a regular basis. This helps us retrieve them in case of any data loss. Backup software helps create a backup of the files on the computer. This software copies our important files to another storage device, such as an external hard disk. Some of the examples of backup software are Norton Ghost, Symantec Backup Exec, Acronis True Image, TotalRecovery Pro, etc.

(e) Differentiate between the following:

(i) **Compiler and Interpreter**

Compiler—The programs written in high-level language are converted into machine language by the compiler before execution. It translates the entire program at a time and then executes it.

Interpreter—Like the compiler, it also converts the programs written in high-level language into machine language before execution. The only difference is that it translates one statement of the program at a time and then executes it.

(ii) **General Purpose Application Software and Function-specific Application Software**

General Purpose Application Software—Application software are used to perform a variety of tasks and are useful to all computer users. They perform common processing jobs for us. Some of the General Purpose Application Software are web browser, electronic mail, word processing, graphics, spreadsheet applications, etc.

- Web browser—Software such as Microsoft Explorer, Opera, etc., help us navigate resources of the World Wide Web.
- Electronic mail—It allows us to communicate by sending and receiving messages via internet. For example, Gmail, Yahoomail, etc.
- Instant messaging—It allows us to send instant messages. Some of the most commonly used instant messaging software are WhatsApp, Yahoo Messenger, etc.
- Word processing—This is the application which allows us to create, edit, modify and print documents like articles, reports, etc. The most commonly used word processing software is MS Word.

Function-specific Application Software—Function-specific Application Software packages are used for specific requirements of the user in business, research and other fields. For example, we have school management system, which keeps the performance record of all the students, teachers, other helping staff, etc. It provides the school management a complete solution to manage their school.

Similarly, we have inventory management system that keeps track of all the items available in the store, the details of suppliers and customers, etc.

2. Fill in the blanks:

(a) Disk Defragmenter
(b) Antivirus
(c) Disk Cleanup
(d) Backup
(e) Customized
(f) Function-specific Application
(g) productivity program, end-user program
(h) Interpreter
(i) Assembler

3. Tick (✓) the correct option:

(a) (iv) All of these
(b) (iv) School management system
(c) (ii) Compiler
(d) (i) Customized software
(e) (iv) McAfee
(f) (ii) Virus
(g) (iv) Fragmentation
(h) (iv) Customized software
(i) (iii) Disk tools
(j) (iv) All of these

4. Write T for true and F for false statements:

(a) T (b) F (c) T (d) T (e) F
(f) T (g) F (h) T (i) F (j) T

Chapter 4
Advanced Features of Word Processor

1. Answer the following questions:

(a) Short notes:

(i) **Format painter**—Format painter is a tool which quickly applies the same formatting to multiple pieces of text and graphics. It copies all the formatting from one part of the document to another.

(ii) **Superscript**—When we type a small letter just above any line or text, it is termed as Superscript.

(iii) **Subscript**—When we type a small letter just below any line or text, it is termed as Subscript.

(b) Editing a Word document means making changes in the text contained in a file. Editing a file covers these basic areas:

(i) Adding new text (ii) Deleting a text

(iii) Copying a text (iv) Moving a text

(v) Pasting a text (vi) Formatting a text

(c) A header is the top margin of each page, and a footer is the bottom margin of each page. Headers and footers are useful for including material that we want to appear on every page of a document such as our name, the title of the document, or page numbers.

(d) Uses of the following commands are:

(i) **Page break**—When we are writing a document and reach the end of the page, Word automatically moves the text to the next page. We can also insert a page break if we want to move the text to the next page.

(ii) **Column break**—Column break is helpful when creating a document that contains columns, like a newsletter. When using columns in Word, text flows automatically from one column to the next.

(iii) **Line break**—Line break ends a current line and allows us to write in the next line. It is useful when we want to separate a paragraph or enter address or write a poem. This helps in omitting extra space between the lines.

(e) When we read books, we notice that the first line of a paragraph starts little away from the left margin. This is due to indentation. To visually separate paragraphs from one another, we indent our text document. We can indent our document by:

(i) Tab (ii) Indent command (iii) Indent marker

2. Fill in the blanks:

(a) Tab Selector
(b) Indentation
(c) Replace text
(d) Shape
(e) Ctrl+F

3. Tick (✓) the correct option:

(a) (i) inserting or overwriting text in the document.
(b) (i) Layout tab → Page Setup group → Size
(c) (iii) Page margins
(d) (iv) Shift + Enter
(e) (iii) can accept or reject changes

4. Write T for true and F for false statements:

(a) F (b) F (c) F (d) F (e) F

Chapter 5
Tables in Word

1. Answer the following questions:

(a) We can create tables by the following ways:

(i) **Insert a table**

Click on Insert tab → Tables group → Tables command → Insert table option

(ii) **Draw a table**

Click on Insert tab → Tables group → Tables command → Draw table option → Cursor changes to pencil shape → Now we can draw the table.

(b) Word provides us with table style option which has predefined formatted table styles. We can use these table styles to format our tables.

(c) To move from one cell to another in a table, we can either use TAB key or Arrow key or mouse to point to the cell.

(d) We can select a row by moving the mouse cursor on the left side of the row and left-clicking when the mouse cursor starts pointing towards the right side.

We can select a column by moving the mouse cursor on the top of the column and left-clicking when the mouse cursor starts pointing downwards.

Another method of selecting a row or a column is:

- Click on the table → Table Tools → Layout tab → from the drop-down list, select any one of the four options (select cell, select column, select row and select table).

(e) To insert a row and a column in a table,

(i) First we need to select a row and then left-click on Layout tab of Tables Tools. Locate the Rows & Columns group on the ribbon. From the group, choose whether to insert a row above or below the selected row.

(ii) As we take a mouse pointer to the place where we want to insert a row or a column, a "+" sign is displayed. When we click on that sign, a new row gets added.

2. Fill in the blanks:

(a) Table
(b) Cells
(c) Rows, Columns
(d) Draw Table
(e) Table Style

3. Match the following:

(a) (iii) Tab key or Arrow key
(b) (v) Table Style
(c) (ii) Design tab
(d) (i) Layout tab
(e) (iv) Insert table window

4. Write T for true and F for false statements:

(a) T (b) T (c) T (d) F (e) T

5. Tick (✓) the correct option:

(a) (iv) 1 row and 1 column.
(b) (i) Insert tab → Tables group → Tables command → Insert table
(c) (iv) Rows & Columns
(d) (i) Tab key.
(e) (ii) Pencil

Chapter 6
Mail Merge in Word

1. Answer the following questions:

(a) Mail Merge is an important feature of MS Word because it allows us to personalize the invitation. We can merge a list of names and addresses to a single letter that can be sent to different people in their names and addresses.

(b) The two important documents required in mail merge are:

(i) Data Source—List of people (or data)

(ii) Main Document—Common text that will remain consistent in each letter

(c) Steps involved in mail merge are:

(i) Open the main document.

(ii) Left click on Mailings tab on the ribbon.

(iii) Locate the Start Mail Merge group.

(iv) Left click on the arrow next to Start Mail Merge command in this group and select Letters option from the drop-down list.

(v) Select Recipients command in this group and select Use Existing List option from the drop-down list. Select Data Source window gets displayed.

(vi) From Select Data Source window, browse through the directory where data source file has been stored. Once data source file is selected, other mail merge icons will also become active under the Mailings tab.

(vii) Locate Write & Insert Fields group under the Mailings tab.

(viii) Left click on the arrow next to Insert Merge Field. The list of all fields (column heads) that we have defined in the data source file will be displayed.

(ix) Now select the field to insert the field in the main document.

(x) For instance, to insert the first name next to 'Dear' in the main document, place the cursor after it and then select the first name field. This way, we can insert all the required fields in the main document at appropriate places.

(d) When both the main document and data source are integrated into one and the document is either printed or saved as a Word file, then such a document is called a merged document.

(e) To print a merged document, we have to left-click on the arrow next to the Finish & Merge command in Finish group under Mailings tab. From the drop-down list, select Print Documents option. Merge to Printer window gets displayed. We can either choose to print All the merged letters, or choose to print a Range From which record To which record, or choose to print only the Current Record.

2. Fill in the blanks:

(a) data source

(b) main document

(c) merged document

(d) list of people (data)

(e) Preview Results command

3. Write T for true and F for false statements:

(a) T (b) F (c) T (d) F (e) T

4. Tick (✓) the correct option:

(a) (ii) data source and main document.

(b) (iii) records of persons.

(c) (iv) Change Styles

(d) (i) 

(e) (iv) All of these

(f) (iii) each column head is called a field and row is called a record.

Chapter 7
Presentation Software—Special Effects

1. Answer the following questions:

(a) Steps for inserting the following are:

(i) **Shapes:** We can insert Shapes by following the steps given below:

- Open the slide to which we want to insert a shape.
- Click on Insert tab.
- Locate Illustrations group on the ribbon.
- Click on the arrow next to Shapes option.
- Select the shape from the drop-down.
- The shape gets inserted to the slide.

(ii) **Clipart:** For inserting Clipart, follow the steps given below:

- Open the slide in the PowerPoint Presentation to which we want to add a Clipart.
- Click on Insert tab.
- Locate Images group on the ribbon.
- Click on Online Pictures option.
- Insert Pictures window opens. Here, we can search the Clipart by typing the name of the image we want in the Bing Image search box and press Enter.
- All the related images get displayed in the Search Result window.
- Click on the arrow next to Type and select Clipart option from the drop-down list. The search result now displays all the related Clipart images. Select a Clipart image and press the Insert button.
- The selected Clipart gets inserted into our slide.

(iii) **WordArt:** To insert WordArt textbox, follow the steps given below:

- Open the slide to which we want to add WordArt.
- Click on Insert tab.
- Locate Text group on the ribbon.
- Click on the arrow next to WordArt option.

- A variety of options get displayed in the drop-down list. We can click on any option to select the desired WordArt.
- A textbox gets added to the slide. Now, when we type in this textbox, the text is displayed in that style. Here, in the given example, we have used two WordArt styles.

(b) **Alignment**—The placement of text in a presentation relative to the margins is called alignment. We can align our text in four different ways.

(i) *Align Left*—The content of the slide is aligned towards the left margin.

(ii) *Align Right*—It aligns the content towards the right margin.

(iii) *Center*—It centres the content on the slide.

(iv) *Justify*—It distributes the content evenly between the left and right margins.

(c) **Difference between Solid fill and Gradient fill:**

Solid fill: It will fill the entire slide with only one color.

Gradient fill: It will fill the slide where the color changes gradually to another colour.

(d) We can enhance our PowerPoint presentations by inserting text, pictures, audio and video clips. We can also enhance our presentations by applying themes to our slides. Themes are predefined combinations of fonts, backgrounds, colors and effects that create designer-looking presentations with very little effort.

(e) Microsoft provides us with various built-in templates. Templates can contain layouts, theme colors, theme fonts, theme effects, background styles and even content. Templates can be applied only at the time of creation of a new presentation. To create a new presentation using the template, we need to follow the steps given below:

(i) Open a PowerPoint presentation window. It displays two panes. The left pane shows the list of all the recently-viewed presentations and the right pane displays the available templates for our new presentation.

(ii) We can choose any template from the right pane.

(iii) A small window pops up displaying different color options in this template.

(iv) We can choose any one of them and click on the Create button.

(v) The PowerPoint presentation is created with the template we selected.

2. Fill in the blanks:

(a) Slides

(b) Normal view opens with three panes:

(i) Slides Pane (ii) Design Pane

(iii) Notes Pane

(c) PowerPoint presentation can be viewed in the following ways:

(i) Normal view (ii) Outline view

(iii) Slide Sorter view
(iv) Notes Page view
(v) Reading view
(vi) Slide Show view

(d) pattern or blueprint
(e) creation of new presentation
(f) PowerPoint Themes
(g) Variants
(h) Justify
(i) Clipart
(j) WordArt

3. Tick (✓) the correct option:

(a) (i) Illustrations
(b) (iv) Images
(c) (i) Clipart
(d) (iv) All of these
(e) (ii) WordArt
(f) (iv) Gradient fill
(g) (iii) Picture or texture fill
(h) (iii) Templates
(i) (ii) Design
(j) (i) Alignment

4. Match the following:

(a) (iii) Decorative text effects
(b) (iv) Collection of pictures or images
(c) (i) Placement of text
(d) (v) Impressive presentation
(e) (ii) Blueprint of slides

5. Write T for true and F for false statements:

(a) T (b) F (c) T (d) F (e) F
(f) T (g) F (h) T (i) F (j) T

Chapter 8
Internet Services

1. Answer the following questions:

(a) Applications of internet in our day-to-day life are:

(i) Exchange messages using email (electronic mail).
(ii) Transfer files and software.
(iii) Browse through information on any topic on the web.
(iv) Do chatting with others connected to the internet.
(v) Read the news available on leading news groups.
(vi) Send or receive picture files from distant places.

(b) Differences between Dial-up connection and ISDN are:

Dial-up connection

- Dial-up connection is just like a phone connection.
- It requires a modem and a public telephone network.
- It uses analog telephone lines.
- Encoding and decoding of analog signals is done by modem.

ISDN

- ISDN stands for Integrated Services Digital Network.
- The connection is made using phone lines that carry digital signals instead of analog signals. Therefore, it is a fast digital dial-up connection.
- Both speech and information are on the same line.
- It is used for activities like videoconferencing, etc.

(c) Satellite Connection

- Internet connection is provided through satellites.
- The information is sent to the user from satellite.
- A mini-dish satellite receiver and a satellite modem are required at the user's end.
- It is a high-speed internet connection.

(d) Netiquettes refer to Internet Etiquettes. This simply means the use of good manners in online communication such as email, forums, blogs and social networking sites. It is important to use netiquettes because online communication is non-verbal.

(e) We should always follow the following etiquettes on the internet:

(i) Never give any personal information.
(ii) Take care when posting photos and videos.
(iii) Do spellcheck messages before posting online.
(iv) Do not write in capital letters.
(v) Our accounts and profiles should not be made public.
(vi) Do not send personal insults.
(vii) Stay away from spam.
(viii) Shop only from secure websites.
(ix) Ignore pop-up windows.

2. Fill in the blanks:

(a) analog
(b) modem
(c) ISDN
(d) mini-dish
(e) Cable modem
(f) WiMax
(g) Netiquettes
(h) screaming
(i) made public
(j) Spam messages

3. Tick (✓) the correct option:

(a) (iii) Sending or receiving phone calls through phone lines.
(b) (ii) Internet Service Provider
(c) (i) Public telephone
(d) (iii) https://
(e) (i) Viruses
(f) (iv) Spam
(g) (iii) Forever
(h) (iii) Credit card number
(i) (i) WiMAX
(j) (iii) Both speech and information

4. Write T for true and F for false statements:

(a) T (b) F (c) T (d) T (e) F
(f) T (g) T (h) F (i) F (j) T

Chapter 9
The World of Applications

1. Answer the following questions:

(a) Applications are the small software programs which run on our mobile phones, computers, tablets, etc. They are designed to perform specific tasks, functions or activities which are useful for us. Some of the commonly-used applications are word processor, spreadsheet, web browser, gaming console, etc. Some of the important features of an application software are:

(i) User-friendly Interface (ii) Easy to design
(iii) More interactive (iv) Easy to understand

(b) Applications are used everywhere nowadays. Everyone is using applications in one form or another. These applications are installed on computers, mobiles, tablets, etc. Application software can be used:

(i) As productivity tool
(ii) As business tool
(iii) To assist graphic projects
(iv) To assist multimedia projects
(v) To provide support at home
(vi) To provide support in educational activities
(vii) To provide support in personal activities
(viii) To assist in communication

(c) There are three main types of applications:

(i) **Desktop:** The applications that run on standalone machines are termed as desktop applications. Therefore, we can define desktop applications as the applications that can be installed on a single computer and perform a specific task.

(ii) **Web-based:** Applications that run with the user's web browser are called as web applications. With the introduction of internet and online commerce, web application development has gained importance. Online shopping cart on an e-commerce website is considered as an example of web application.

(iii) **Mobile:** A software application that runs on a smartphone, tablet or other portable device is called mobile application. Mobile applications help us by connecting to internet services. The mobile application software helps us by making it easier to use the internet on our portable devices.

(d) Web/Mobile applications are better than desktop applications because of the following reasons:

(i) Applications need to be installed only once.

(ii) They can be accessed from any location through the internet.

(iii) Easy portability and better functions from usability point of view.

(e) Difference between Desktop and Web/Mobile Applications

	Desktop Applications	**Web/Mobile Applications**
Maintenance	Applications are to be installed separately on each computer.	Applications need to be installed only once and updates take place automatically
Ease of use	As they are confined to a physical location, they have usability constraint.	Applications can be accessed from any location through the internet.
Security	We have total control over the standalone applications and can protect them from various vulnerabilities.	They are more at risk because they are open to a large number of users on the internet.
Connectivity	Applications are standalone in nature. Therefore, they do not face any problem due to internet connectivity and speed.	Web applications totally rely on internet connectivity and speed.
Cost Factor	Desktop applications are bought once, thus no recurring cost is involved.	Development and maintenance of web applications involves high cost as it is recurring in nature

2. Fill in the blanks:

(a) Desktop
(b) Mobile application
(c) Word processor and Media player
(d) Mobile application
(e) App
(f) Word processor
(g) Tabular
(h) Tables, Queries, Reports
(i) Internet
(j) App stores like Google Play Store

3. Place the apps under correct column:

Desktop apps	Web-based apps	Mobile apps
Word	Web browser	Gmail for mobile
Excel	Gmail	WhatsApp
Access	Amazon app	Nova launcher
	Naukri.com	Fifa 17 mobile
		Uber
		Amazon app

4. Write T for true and F for false statements:

(a) F (b) T (c) F (d) F (e) T
(f) F (g) F (h) T (i) T (j) F

5. Tick (✓) the correct option:

(a) (iii) Web browser
(b) (ii) WhatsApp
(c) (ii) Videoconferencing
(d) (iv) Laptop
(e) (ii) Standalone
(f) (i) Portability
(g) (iii) Unique
(h) (ii) Marketing
(i) (iv) All of these
(j) (i) Word processor

Chapter 10
Evolution of Artificial Intelligence

1. Answer the following questions:

(a) 1974–1980 is considered as the AI Winter#1 because various failures were encountered in the field of AI during this time.

(b) IBM's Supercomputer Deep Blue defeated Grandmaster Gary Kasparov, then World Chess Champion.

(c) The main idea behind the Turing Test was that a human judge would have two conversations—one with a machine and the other with a human—without knowing which one was with a human and which one with a computer. To pass this test, the machine should fool the judge, *i.e.*, the judge should not be able to distinguish between the human and computer conversation.

(d) Eliza was the first chatbot psychotherapist. It was created by Joseph Weizenbaum. It could interact with the user by recognizing keywords in the input and then generating a response from pre-programmed responses. It gave the impression that the user was chatting with a real psychotherapist.

(e) In 1956, John McCarthy, who is also known as the 'Father of Artificial Intelligence', coined the term Artificial Intelligence. He specified AI as "the science and engineering of making intelligent machines".

2. Fill in the blanks:

(a) Alan Turing
(b) Mars Rover
(c) Shakey
(d) LISP programming language, AI expert systems
(e) Deep Blue, Grandmaster Gary Kasparov
(f) DARPA Grand Challenge
(g) IBM's Watson
(h) AI requires:
  (i) Big Data
  (ii) Algorithms
  (iii) Computational power

3. Tick the correct option:

(a) (iii) Can machines think?
(b) (i) Turing Test
(c) (i) Alan Newell
(d) (i) Shakey
(e) (iii) Eliza
(f) (iii) Deep Space 1
(g) (i) DeepMind
(h) (iii) NASA

4. Write T for true and F for false statement.

(a) T
(b) F
(c) F
(d) T
(e) T
(f) T
(g) T
(h) T