ANSWER KEY

Touchpad PLUS Ver 1.1

1. Number System

One Touch Learn

A. 1. c   2. a   3. c   4. a

B. 1. T

2. (This question is incorrect in the book please correct it in your textbook)

   Q. The base of decimal number system is 2.

   A. False

3. T   4. T   5. T

C. 1. 0   2. 2   3. decimal number   4. 10

5. 8   6. binary

Let's Do It

A. 1. Octal number system is used as a shorthand representation of long binary numbers.

2. Group of 8 binary digits either 0 or 1 is called a byte.

3. Base in octal number system is 8 and hexadecimal number system is 16.

B. 1. A number system is simply a method of counting. There are 4 types of number systems in computer such as binary number system, decimal number system, octal number system, and hexadecimal number system.

2. To convert a decimal number into a binary number, follow these steps:

   Step 1   Divide the decimal number by 2 (the base of the binary number system).

   Step 2   Note down the quotient and the remainder.

   Step 3   Divide the quotient obtained again by 2 and note down the resulting quotient and remainder.

   Step 4   Repeat the procedure till you reach a quotient less than 2.

   Step 5   List the last quotient and all the remainders (moving from bottom to top). You have your binary number.

3. The rules to multiply two binary numbers are:

X	Y	X × Y

0	0	$0 \times 0 = 0$
0	1	$0 \times 1 = 0$
1	0	$1 \times 0 = 0$
1	1	$1 \times 1 = 1$

C. 1. $(10111.011)_2 = 1 \times 2^4 + 0 \times 2^3 + 1 \times 2^2 + 1 \times 2^1 + 1 \times 2^0 + 0 \times 2^{-1} + 1 \times 2^{-2} + 1 \times 2^{-3}$

$= 1 \times 16 + 0 + 1 \times 4 + 1 \times 2 + 1 \times 1 + 0 + 1/4 + 1/8$

$= 16 + 4 + 2 + 1 + 0.25 + 0.125$

$= (23.375)_{10}$

2.
$$
\begin{array}{ccccccc}
 & 0 & 10 & 10 & & & 10 & \text{—— Borrow} \\
 & 1 & 0 & 0 & 1 & 1 & 0 \\
- & & & 1 & 1 & 0 & 1 \\
\hline
 & & 1 & 1 & 0 & 0 & 1 \\
\hline
\end{array}
$$

3. (a)
$$
\begin{array}{cccc}
 & 1 & 0 & 0 & 0 \\
+ & & 1 & 0 & 1 \\
\hline
 & 1 & 1 & 0 & 1 \\
\hline
\end{array}
$$

(b)
$$
\begin{array}{c}
1\ 1\ 1 \quad \text{—— Carry} \\
\begin{array}{ccccc}
 & 1 & 0 & 1 & 1 \\
+ & & 1 & 0 & 1 \\
\hline
1 & 0 & 0 & 0 & 0 \\
\hline
\end{array}
\end{array}
$$

(c)
$$
\begin{array}{c}
1 \quad \text{—— Carry} \\
\begin{array}{cccc}
1 & 0 & 0 & 1 \\
+ & 1 & 0 & 1 \\
\hline
1 & 1 & 1 & 0 \\
\hline
\end{array}
\end{array}
$$

(d)
$$
\begin{array}{c}
1\ 1\ 1 \quad \text{—— Carry} \\
\begin{array}{ccccc}
 & 1 & 1 & 1 & 1 \\
+ & 1 & 1 & 1 & 1 \\
\hline
1 & 1 & 1 & 1 & 0 \\
\hline
\end{array}
\end{array}
$$

(e)
$$
\begin{array}{c}
1 \quad \text{—— Carry} \\
\begin{array}{cccccc}
 & 1 & 1 & 0 & 0 & 1 \\
+ & 1 & 0 & 1 & 0 & 1 \\
\hline
1 & 0 & 1 & 1 & 1 & 0 \\
\hline
\end{array}
\end{array}
$$

4. (a)
$$
\begin{array}{c|l}
2 & 39 - 4 \\
\hline
2 & 19 - 1 \\
\hline
2 & 9 - 1 \\
\hline
2 & 4 - 1 \\
\hline
2 & 2 - 0 \\
\hline
 & 1 - 0 \\
\end{array}
$$

Hence, $(39)_{10} = (100111)_2$

(b)
$$
\begin{array}{c|l}
2 & 72 \\
\hline
2 & 36 - 0 \\
\hline
2 & 18 - 0 \\
\hline
2 & 9 - 0 \\
\hline
2 & 4 - 1 \\
\hline
2 & 2 - 0 \\
\hline
 & 1 - 0 \\
\end{array}
$$

Hence, $(72)_{10} = (1001000)_2$

(c)

2	128
2	64 – 0
2	32 – 0
2	16 – 0
2	8 – 0
2	4 – 0
2	2 – 0
	1 – 0

Hence, $(128)_{10} = (10000000)_2$

(d)

2	55
2	27 – 1
2	13 – 1
2	6 – 1
2	3 – 0
	1 – 1

Hence, $(55)_{10} = (110111)_2$

(e)

2	173
2	86 – 1
2	43 – 0
2	21 – 1
2	10 – 1
2	5 – 0
2	2 – 1
	1 – 0

Hence, $(173)_{10} = (10101101)_2$

Crack The Code

```
                                      1
                                      2
                       3              
        2  1  1  0  0  1  0  1
                       2      5
                    4  3  0   1
                              0
                    6  1  2        7
                    8  1  0  1  0  0  1  0  1
                              0        0
                 9  8  1
                       0
              10  1  0  6
                       1
```
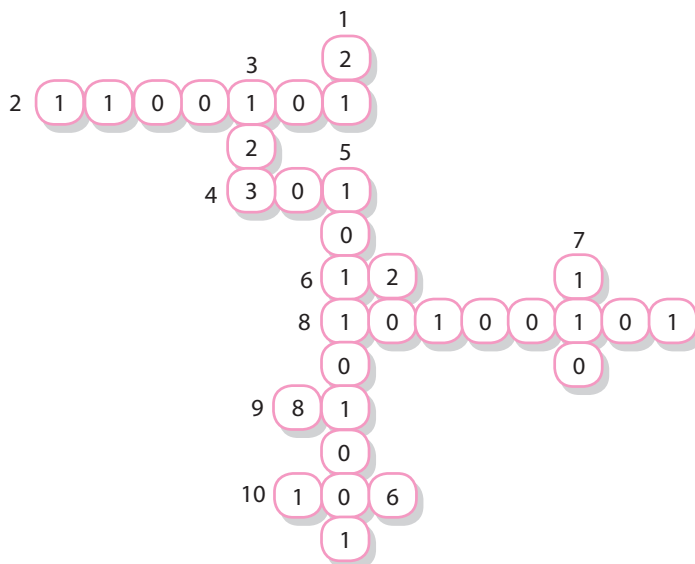
2. Formulas, Functions and Charts in Excel

One Touch Learn

A. 1. a 2. a 3. c

4. (This question is incorrect in the book please correct it in your textbook)

Q. Which of the following option is used to get the sum of a range?

a. SUM() b. Alt + =

c. Ctrl + d. None of these

A. a. SUM()

5. b

B. 1. T 2. T 3. F 4. F 5. T

C. 1. Functions 2. equals 3. square root 4. column 5. Dollar ($)

D. 1. (b) 2. (c) 3. (d) 4. (a)

Let's Do It

A. 1. A cell or a range of cells that you want to use in your calculation is called cell reference.

2. a. Data series is related to the set of values. It is represented by the bars or slices that represent the data values.

b. Legend is a key which shows the meanings of symbols and colours used in the chart.

B. 1. A formula is an expression which calculates the value of a cell. Formulas in Microsoft Excel begin with an equal sign. For example,
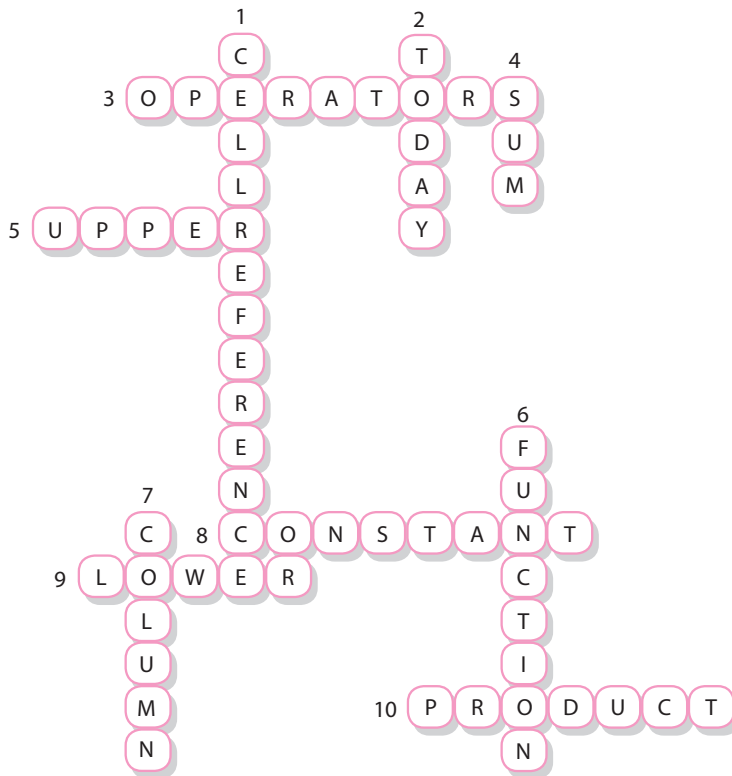
$$= 10 + 20 / 5 + (5*4)$$

$$= 20 + 60 * 10$$

2. Excel follows certain rules of precedence:

(i) Excel calculates expressions within parentheses '(' , ')' first.

(ii) Excel calculates multiplication and division before addition and subtraction.

(iii) Excel calculates consecutive operators with the same level of precedence from left to right.

3. The LEN function returns the length of the text string. For example,

=LEN("Excel") will return 5.

4. Rules for using functions are:

(i) All Excel functions must begin with = sign.

(ii)   Function name must be a valid Excel name.

(iii)   Function must be followed by opening and closing parenthesis.

(iv)   Functions must contain an argument within it.

5. The Column chart is used to show the changes in data over a period of time or comparison among the different data items whereas, Scatter chart is used to show the correlations between the two sets of values.

Crack The Code

A.   1.   Pie Chart

2.   Cell Referencing

B.

```
            1              2
            C              T        4
      3  O  P  E  R  A  T  O  R  S
            L              D        U
            L              A        M
   5  U  P  P  E  R         Y
            E
            F
            E
            R                        6
            E                        F
      7     N                        U
      C  8  C  O  N  S  T  A  N  T
   9  L  O  W  E  R                  C
      L                             T
      U                             I
      M           10  P  R  O  D  U  C  T
      N                             N
```

FUN in LAB

Do yourself.

3. More on Excel

One Touch Learn

A. 1. a 2. c 3. c 4. c 5. d

B. 1. F 2. F 3. F

4. (This question is incorrect in the book please correct it in your textbook)

Q. Sorting can also be done through Sort & Filter group under the Home tab.

A. True

5. F 6. T

**C.** 1. custom sort 2. styles 3. conditional formatting 4. filters

Let's Do It

A. 1. Excel can arrange the selected data in ascending or descending order. This is called sorting of data.

2. Filters can be removed by clicking anywhere in the worksheet and repeating steps to apply filters.

3. For arranging a data in the sequential order, we need to sort the data.

B. 1. To use Custom Sort, follow these steps:

Step 1 Select the range of columns to be sorted.

Step 2 Click Sort & Filter command from Editing group under Home tab.

Step 3 Click on Custom Sort option.

Step 4 Check My data has headers checkbox if the selected columns have a heading at the top.

Step 5 Click the Sort by box to open list of column headers. Select the desired column head for sorting.

Step 6 Click Sort On box to select Values option.

Step 7 Click Order box and select the desired option.

Step 8 Click on Add Level button on the top of the dialog box. This will add one more row to define new criteria.

Step 9 Repeat steps 5 to 7 to sort another column.

Step 10 Click on OK button.

2. Sorting data means to arrange the data in ascending or descending order. On the other hand, filtering data means to filter unwanted data from a set of data.

3. Names of criteria are:

(i) Highlight Cells Rules

(ii) Top/Bottom Rules

(iii) Data Bars

(iv) Color Scales

(v) Icon Sets

Crack The Code

A. 1. By sorting, the data of sales column in descending order.

2. Conditional Formatting

B.

FUN in LAB
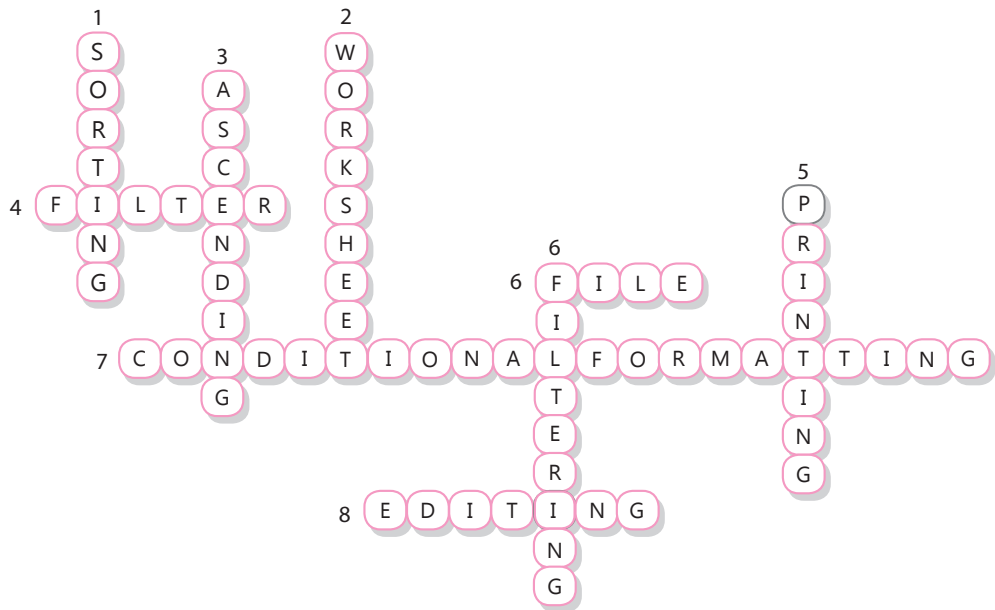
Do yourself.

Periodic Assessment-1

(Based on chapters 1 to 3)

A. 1. The total number of digits used in a number system is called its base.

2. Hexadecimal number system consists of 16 digits from 0-9 and A to F.

3. In BEDMAS rule, E stands for exponentiation.

4. $ sign can be used in both absolute referencing and mixed referencing.

5. Conditional Formatting command is present under Home tab.

B. 1. It is used to show the changes in data over a period of time.

2. It is used to show the relative size of each value.

3. It is used to display the quantitative magnitude of the data graphically.
4. It is used to display the data in the form of long rectangular rods also called bars.
5. It is used to show the correlations between the two sets of values.

C. 1. Scientific 2. H 3. Particular 4. Average

D. 1. (c) 2. (e) 3. (b) 4. (a) 5. (d)

4. Animations in Flash

One Touch Learn

A. 1. a 2. c
3. (This question is incorrect in the book please correct it in your textbook)

Q. Which of the following option is represented by a hollow circle below the frame number in the timeline?

a. Frames b. Layers
c. Blank Keyframes d. Symbols

A. c. Blank keyframes

4. c

B. 1. T 2. T 3. F 4. F

C. 1. symbol 2. alpha 3. frame 4. tween

Let's Do It

A. 1. The movie clip symbol is a type of symbol which contains another Flash movie within a Flash movie.
2. Layers are thin pieces of transparent sheets.
3. A keyframe is a frame where major changes take place in an animation.
4. Timeline is a panel in Flash that contains layers and frames.

B. 1. Symbol is a reusable object in Flash and an instance is the copy of the original symbol. We can create many instances of a symbol.
2. Each of the button symbols has four different stages such as Up, Over, Down, and Hit. The functions of these four different states are:

(i) The Up state is the state when the mouse pointer is not over the button.

    (ii)   The Over state is the state when the mouse pointer is moved over the button.

    (iii) The Down state is the state when the button is clicked.

    (iv) The Hit state is the state which will define the response of the user's mouse action.

3. A tween is a type of animation in Flash. In tween, you need to create the starting and ending keyframes to animate the object. There are two types of tweens in Flash that are shape tween and motion tween.

Crack The Code

A. 1. Blank Keyframe   2. Tween animation

B. 1. Layer 2   2. Layer 1   3. Layer 1   4. Shape Tween

FUN in LAB

Do yourself.

5. Introduction to Photoshop

One Touch Learn

A. 1. b   2. a   3. c   4. a   5. c   6. a

B. 1. T   2. F   3. F   4. F

     5. T   6. F   7. F

C. 1. pencil   2. workspace   3. lasso   4. Horizontal Type   5. gradient

D. 1. (d)   2. (e)   3. (f)   4. (a)   5. (b)   6. (c)

Let's Do It

A. 1. Rectangular Marquee Tool is used to select a rectangular portion of an image.

2. Lasso Tool is used to make freehand selection in the images.

3. RGB stands for Red Green Blue. CMYK stands for Cyan Magenta Yellow Black.

4. Brush Tool is used to draw brush strokes to give an effect of painting to the image and Paint Bucket Tool is used to fill the colour in closed shapes and images.

B. 1. Adobe Photoshop is a graphics software developed and published by Adobe Inc. Features of Photoshop are:

- User friendly interface
- Photo manipulation can be done in less time
- Powerful tools are used to change the color of an image by adjusting brightness, contrast, color balance, hue and saturation levels

- Create graphics for web applications with reduced file size, thus helping in faster loading of the websites
- Layer effect preserves the original state of the image
- Can be used to create 3-D icons

2. There are various types of painting tools in Photoshop. Some of them are:
   - **Pencil Tool:** It is used to draw freehand shapes.
   - **Brush Tool:** It is used to draw brush strokes to give an effect of painting to the image.
   - **Eraser Tool:** It is used to erase or rub some portion of an image or workspace.
   - **Paint Bucket Tool:** It is used to fill the colour in closed shapes.

3. Rectangular Marquee Tool is used to select a rectangular portion of an image whereas, Elliptical Marquee Tool is used to select an oval or circular portion of an image.

Crack The Code

A. 1. Quick Selection Tool
    2. Brush Tool

B.

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

FUN in LAB

Do yourself.

Periodic Assessment-2
(Based on chapters 4 & 5)

A. 1. Hide/Unhide layer   2. Blank Keyframe   3. Lock/Unlock layer
    4. Horizontal Type Tool   5. Paint Bucket Tool   6. Eraser Tool
B. 1. Line Tool   2. Gradient Tool   3. Rectangle Tool

C. 1. Ctrl + L key   2. F8 key   3. Ctrl+Enter key
4. F7 key
D. 1. Symbol   2. Layers   3. Crop Tool
4. Gradient Tool   5. Lasso Tool   6. .psd

Test Sheet-1

(Based on chapters 1 to 5)

Section A

A. 1. (c)   2. (c)   3. (c)   4. (c)
5. (c)   6. (a)   7. (a)
8. (This question is incorrect in the book please correct it in your textbook)
   Q. Which of these is not a criteria used in conditional formatting?
       a. Data bars b. Top/Bottom Rules
       c. A to Z   d. Icon sets
   Ans. c. A to Z
B. 1. tween   2. frame   3. base   4. Doller $ 5. Editing
6. Lasso Too
C. 1. T   2. F   3. T   4. F   5. F
D. 1. (c)   2. (a)   3. (d)   4. (e)   5. (b)

Section B

A. 1. The base of octal number system is 8 and hexadecimal number system is 16.
2. A cell or a range of cells that we want to use in our calculation is called cell reference.
3. For arranging a data in the sequential order, we need to sort the data.
4. A keyframe is a frame where major changes take place in an animation.
B. 1. 1. Each of the button symbols has four different stages such as Up, Over, Down, and Hit. The functions of these four different states are:
   (i)   The Up state is the state when the mouse pointer is not over the button.
   (ii) The Over state is the state when the mouse pointer is moved over the button.
   (iii) The Down state is the state when the button is clicked.
   (iv) The Hit state is the state which will define the response of the user's mouse action.
2. To convert a decimal number into a binary number, follow these steps:
   Step 1 Divide the decimal number by 2 (the base of the binary number system).
   Step 2 Note down the quotient and the remainder.
   Step 3 Divide the quotient obtained again by 2 and note down the resulting quotient and remainder.
   Step 4 Repeat the procedure till you reach a quotient less than 2.
   Step 5 List the last quotient and all the remainders (moving from bottom to top). You have your binary number.

3. Excel follows certain rules of precedence:
   (i) Excel calculates expressions within parentheses '(' , ')' first.
   (ii) Excel calculates multiplication and division before addition and subtraction.
   (iii) Excel calculates consecutive operators with the same level of precedence from left to right.
4. To apply Custom Sort, follow these steps:
   Step 1   Select the range of columns to be sorted.
   Step 2   Click Sort & Filter command from Editing group under Home tab.
   Step 3   Click on Custom Sort option.
   Step 4   Check My data has headers checkbox if the selected columns have a heading at the top.
   Step 5   Click the Sort by box to open list of column headers. Select the desired column head for sorting.
   Step 6   Click Sort On box to select Values option.
   Step 7   Click Order box and select the desired option.
   Step 8   Click on Add Level button on the top of the dialog box. This will add one more row to define new criteria.
   Step 9   Repeat steps 5 to 7 to sort another column.
   Step 10 Click on OK button.
5. To apply cell border, follow these steps:
   Step 1   Select the cells on which you want to apply the cell border.
   Step 2   Click on Border command from the Font group under the Home tab.
   Step 3   Click on appropriate option from the drop-down menu.

6. Internet Services

One Touch Learn

A.   1. d   2. a   3. c   4. d   5. c

B.   1. T   2. F   3. T   4. T

C.   1. Cloud storage   2. blogs   3. chat   4. E-mail
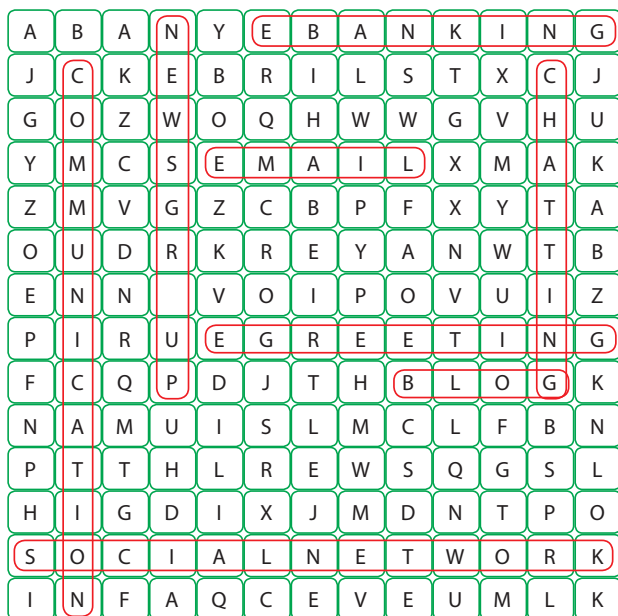   5. E-Banking

Let's Do It

A.   1. Online chat refers to a communication in the form of small messages among the computers over the Internet, just like SMS service on mobiles.
      2. A newsgroup is a discussion group that focuses on a particular topic.

3. No, because these services are generally considered as a source of distraction from education for students.

4. Cloud storage is a service where the users are able to store and manage data on remote server in place of their local computer.

B. 1. To upload a file on Google Drive, follow these steps:

Step 1 Visit www.google.com/drive/ web page.

Step 2 Click on Go to Google Drive button.

Step 3 Enter your Gmail account's username and then click on Next button.

Step 4 Enter password and then click on Next button.

Step 5 Click on My Drive option. This will open a drop-down list.

Step 6 Click on Upload Files to upload and store your file on the remote server.

2. Blogs are generally like a detailed explanation on a subject or sometimes also as a Diary of Events. It is a discussion platform where the readers of the blog can add their comments and suggestions. These posts are displayed in descending order of time, which means the latest post is shown at the top.

3. Different types of communication techniques are:

(i) **E-mail:** E-mail stands for electronic mail. You can send messages and files from your computer to your friend's computer and vice-versa using e-mail service.

(ii) **Video Conferencing:** It is a technique of watching the person whom you are talking.

(iii) **Voice-over-Internet Protocol (VoIP):** It is a technology which gives calling facility over the Internet.

(iv) **Chatting:** Refers to a communication in the form of small messages among the computers over the Internet, just like SMS service on mobiles.

(v) **Social Networking:** It is a platform where people with common interest or activities can connect with each other.

4. To register on Skype, follow these steps:

Step 1 Download the Skype from the www.skype.com website and install it on your computer.

Step 2 Double click on Skype icon to start Skype.

Step 3 Click on Sign in or Create button to create an account on Skype.

Step 4 Click on Create one! link. The Create account screen appears.

Step 5 Enter your email and click on Next button.

Step 6 Enter a password and click on Next button.

Step 7 The Skype asks you about your personal details. Then, click on Continue button.

Step 8 Skype further asks you for checking your microphone and webcam. Click on Continue button each time.

A. 1. Popular blogging websites are Blogger, Wordpress, Tumblr, etc.

2. By uploading the files on cloud storage services, Alia can carry her back-up.

B.

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

FUN in LAB

Do yourself.

7. Computer Safety and Security

One Touch Learn

A.	1. b	2. c	3. a	4. c	5. a
B.	1. F	2. T	3. T	4. T	
C.	1. malware	2. biometric	3. decryption	4. Carding	5. zombie

Let's Do It

A. 1. Authentication is the process of verifying a user's identity before granting him or her access to a computer system. Some of the authentication types are:

   (i) Password Authentication

   (ii) Biometric Authentication

  2. Trojan is a type of malware program. The purpose of the trojan horse is to conceal itself inside the software that seems legitimate.

  3. An antivirus program is a software which which is used to detect the presence of a virus on a computer and remove the virus.

  4. Data Diddling, Phreaking, Cloning, Carding

B. 1. Dust can potentially destroy the parts of your computer. By cleaning your computer regularly, you can maintain its performance and avoid expenses on repairs. Cleaning the computer means cleaning different parts of the computer system like keyboard, mouse and monitor.

  2. Malware is a malicious software. It is designed to damage or carryout other unwanted actions on a computer system. The different types of malware are virus, worm, trojan horse, spyware, zombies, ramsomware, rootkit and backdoor.

  3. The difference between a worm and a virus is that worms are aware if the system is connected to a network. A virus finds it very easy to replicate itself amongst files on the same computer, however, it has a hard time jumping from one computer to another. A worm overcomes this computer-to-computer hurdle by seeking new hosts on the network and attempting to infect them.
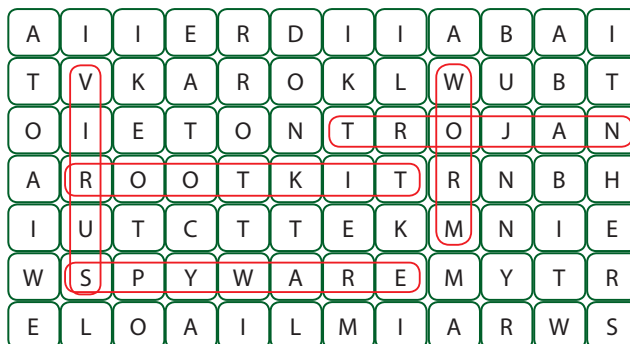
  4. The various reasons for increasing cyber crimes are:

- Increasing use of Internet
- Lack of awareness
- Multi-pronged attacks
- Existing loopholes in software
- Untrained Internet users

Crack The Code

A. 1. Spyware 2. Trojan horse   3. Zombie 4. Ransomware

B.

A	I	I	E	R	D	I	I	A	B	A	I
T	V	K	A	R	O	K	L	W	U	B	T
O	I	E	T	O	N	T	R	O	J	A	N
A	R	O	O	T	K	I	T	R	N	B	H
I	U	T	C	T	T	E	K	M	N	I	E
W	S	P	Y	W	A	R	E	M	Y	T	R
E	L	O	A	I	L	M	I	A	R	W	S

FUN in LAB

✱ Do yourself.

8. Introduction to HTML5 and CSS3

One Touch Learn

A. 1. a   2. c   3. c   4. d   5. a

B. 1. F   2. F   3. T   4. T

C. 1. markup   2. <head>   3. font-weight   4. <p>

Let's Do It

A.
1. HTML stands for Hyper Text Markup Language. It is the most widely used markup language to design web pages.

2. (i) Empty tag

    (ii) Container tags

3. (i) Hypertext is a piece of ordinary text that has special feature of linking to other documents or web pages.

    (ii) Markup language is a language that uses special symbols called Tags to mark up a text document that instructs the browser how to display the text.

4. CSS stands for Cascading Style Sheet. It is a design language which enables to simplify the process of making web pages. The latest version of CSS is CSS 3.

5. An internal style sheet is commonly used when one web page has a unique style.

B.
1. The <HTML> tag tells the web browser that the text contained between <HTML> and </HTML> is a web page and can be viewed using a web browser. The <BODY> tag tells the web browser that the text contained between <BODY> and </BODY> tags is to be shown on the web page.

2. Rules for writing HTML5 tags are:

    (i) Container tags should always be closed properly.

    (ii) Values given to the attributes should be enclosed within the double quotes.

    (iii) Tag name should not contain spaces.

    (iv) There should be no spaces between < and > in a tag.

    (v) Tags must be nested correctly.

3. The Line Break tag is written as <BR>. This tag is used when you want to start a new line, but do not want to start a new paragraph. On the other hand, the Horizontal ruler tag is written as <HR>. This tag is used when you want to divide your web page into different sections.

4. CSS provides various properties like font-family to change the font face, color to change the colour of font, font-style to make the text italic, font-weight to make the text bold, text-decoration to make the text underline or overline and font-size to change the size of font.

5. In case of external stylesheet, the CSS styles are written in a separate file which is saved with .css extension. You need to include a reference to the external style sheet file within the

<LINK> element inside the <HEAD> element. Syntax to include the reference of external stylesheet is:
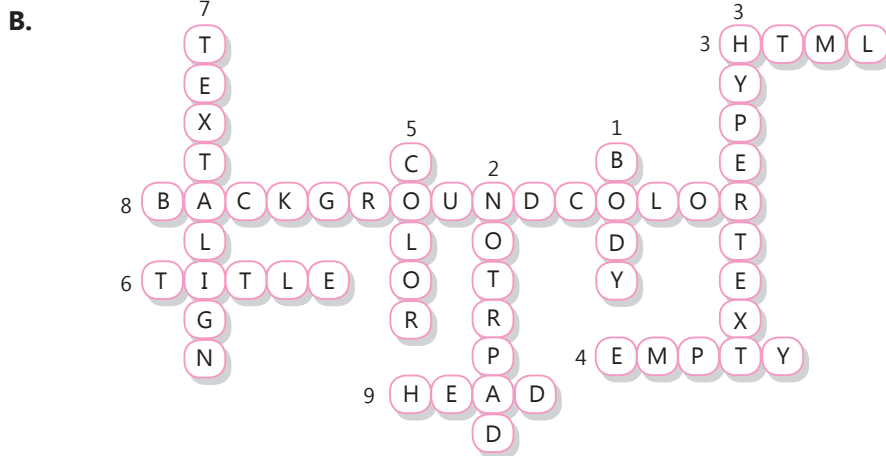
```
<head>
<link rel="stylesheet" type="text/css" href="name of style sheet">
</head>
```

Crack The Code

A.
1. <HR>
2. text decoration
3.
4. <HTML>
5. <BODY>
6. <H1>

B.

The crossword answers:
- 7 (down): TEXTBLIGN
- 8 (across): BACKGROUNDCOLOR
- 6 (across): TITLE
- 5 (down): CLOOR
- 2 (down): NDOTRP
- 9 (across): HEAD
- 3 (across): HTML
- 3 (down): HYPERTEXT
- 1 (down): BODY
- 4 (across): EMPTY

FUN in LAB

Do yourself.

Periodic Assessment-3
(Based on chapters 6 to 8)

A.
1. <P> Tag
2. <P> Tag
3. <HR> Tag

B.
1. **To:** In this field, type your friend's e-mail address. You can enter more than one address by pressing ',' after each e-mail address.
2. **Cc:** Cc stands for carbon copy. It is marked to the e-mail address who is to be informed that an e-mail has been sent to the person marked in To field.
3. **Bcc:** Bcc stands for blind carbon copy. It is marked to the e-mail address when you do not want others to see to whom the e-mail has been sent.
4. **Subject:** In this field, a one line introduction about the purpose of the e-mail is mentioned.

C.
1. d
2. c
3. e
4. f
5. b
6. a

D. YOU HAVE DECIPHERED CORRECTLY

E.   1. Voice-over-Internet Protocol (VoIP) is a technology which gives calling facility over the Internet. It is basically used for voice communications over networks like Internet.

2. This crime is committed against telephone companies by using computers with the goal of making free distance calls, impersonating directory assistance or other operator services, diverting calls to numbers of the perpetrator's choice, or tapping phone lines.

3. It is a language that uses special symbols called Tags to mark up a text document that instructs the browser how to display the text.

4. This refers to the process of stealing credit card numbers online, to be resold or used to charge merchandise against victim's account.

9. Conditional Statements in Python

One Touch Learn

| **A.**	1. c	2. d	3. d	4. d	5. d
B.	1. if	2. true	3. false	4. else	
C.	1. F	2. F	3. F	4. T	5. T

Let's Do It

A.   1. Decision making in Python is done by called conditional statements which decide the flow of program execution.

2. if (Test Expressions_1):
        Indented block 1
    elif (Test Expression_2):
        Indented block 2
    elif (Test Expression_3):
        Indented block 3
    else:
        Indented block

3. if (Test Expression):
        Indented statement block
    # if block ends here

B. 1.
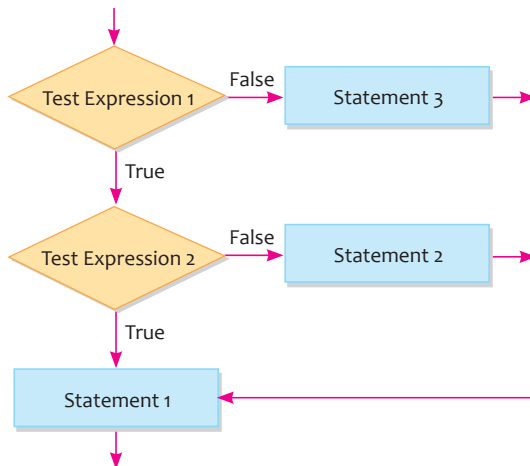
2. um = float(input("Enter the distance measured in centimeter : "))

   """ 1 inch = 2.54 centimeters"""

   inc = num/2.54

     print("Distance in inch : ", inc)

Crack The Code

1. First number is greater than second number.
2. Positive number.
3. Above ten and also about 20!
4. b is not greater than a.

FUN in LAB

1. year = int(input("Please Enter the Year Number you wish: "))
     if ((year%400 == 0)or ((year%4 == 0) and (year%100 != 0))):
   print("%d is a Leap Year" %year)
   else:
     print("%d is Not the Leap Year" %year)

2. Do yourself

3. ch = input("Enter a character: ")
   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(ch, "is a Vowel")
   else:
     print(ch, "is a Consonant")

4.  ```python
    num = float(input("Enter a number: "))
    if num >= 0:
      if num == 0:
        print("Zero")
      else:
        print("Positive number")
    else:
      print("Negative number")
    ```

5. Do it yourself.

10. AI for Sustainable Development Goals

One Touch Learn

A. 1. b   2. a   3. b   4. c   5. c   6. b
B. 1. T   2. T   3. F   4. T
C. 1. Sustainable Development Goals   2. 70   3. 17.2
     4. marine pollution

Let's Do It

A. 1. AI goals include learning, reasoning and creating awareness. AI is being used by many industries which also includes finance and healthcare.

2. AI can help in achieving this goal by increasing the ability of healthcare professionals to analyse huge data sets, providing better feedback and finding accurately the cause of diseases to discover the cure.

3. This SDG aims to guarantee justice and freedom for all people by 2030.

B. 1. It aims to ensure equal opportunities and end discrimination by eliminating discriminatory laws, policies and practices. AI may help in improving industrial growth thereby improving the global financial market and institutions.

2. AI for climate action has the potential to reduce global greenhouse gas emissions by up to 4 percent. Using AI and data from NASA, researchers are able to identify patterns and monitor changes of land surfaces such as decreasing sea area, ice cap surfaces, etc.

3. AI in education can be used to achieve Quality Education goals by developing smart content, providing personalized guidance, round the clock assistance, virtual learning environment and creating more secured online exams.

Periodic Assessment-4

(Based on chapters 9 & 10)

A.
1. AI in education can be used to achieve Quality Education goals by developing smart content, providing personalized guidance, round the clock assistance, virtual learning environment and creating more secured online exams.
2. Technologies like AI in smart cities help the cities to utilise current assets more effectively, allot resources more efficiently and understand how data can be shared and managed across the whole system.
3. Using AI and data from NASA, researchers are able to identify patterns and monitor changes of land surfaces such as decreasing sea area, ice cap surfaces, etc.
4. To be successful in achieving the goals as large as SDGs, it is very much required to have partnerships between the stakeholders like government, private sector and civil society.
5. The target is to significantly reduce all forms of violence with communities and governments to end conflict and insecurity.

B.
1. Variables are memory locations that are used to store values.
2. Keywords are the reserved words which cannot be used as variable names.
3. The input( ) statement is used to take input from the user during the execution of the program.
4. The print( ) statement is used to print the output of a program on the screen.

C.
1. AI can be a vital tool for the global community to achieve the targets of the United Nations Sustainable Development Goals. Asia and the Middle East have already instigated to focus on AI as a part of their development strategy and economic growth.
2. Data types in Python are:
   - Numbers
   - String
   - List
   - Tuple
   - Dictionary

D.
1.
```
radius = float(input("Enter radius of circle: "))
pi = 3.14
area = pi * radius * radius
circumference = 2 * pi * radius
print("Area of circle is:",area)
print("Circumference of circle is:", circumference)
```
2.
```
print("* * * * * * * * * *")
print("*                 *")
print("*                 *")
print("*                 *")
print("*                 *")
print("*                 *")
print("*                 *")
print("*                 *")
print("*                 *")
```

```
print("*                            *")
print("*                            *")
print("*  *  *  *  *  *  *  *  *  *")
```

Test Sheet-2
(Based on chapters 6 to 10)

Section A

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

　　 6. (d)　　　　7. (c)　　　　8. (a)

B. 1. Blind carbon copy　　　2. Text-color　　3. false

　　 4. if　　　　5. Rio+20

C. 1. T　　　　2. F　　　　3. T　　　　4. T

Section B

A. 1. (i) Empty tag　　　　　(ii) Container tags

　　 2. SDG 15(LIFE ON LAND)

　　 3. Rootkit is a malware that gains administrator access to the host system.

　　 4. Authentication is the process of verifying a user's identity before granting him or her access to a computer system. Some of the authentication types are:

　　　(i) Password Authentication　　　　　　(ii) Biometric Authentication

　　 5. if (Test Expressions_1):

　　 Indented block 1

　　 elif (Test Expression_2):

　　 Indented block 2

　　 elif (Test Expression_3):

　　 Indented block 3

　　 else:

　　 Indented block

B. 1. To upload a file on Google Drive, follow these steps:

　　 Step 1 Visit www.google.com/drive/ web page.

　　 Step 2 Click on Go to Google Drive button.

　　 Step 3 Enter your Gmail account's username and then click on Next button.

　　 Step 4 Enter password and then click on Next button.

　　 Step 5 Click on My Drive option. This will open a drop-down list.

　　 Step 6 Click on Upload Files to upload and store your file on the remote server.

　　 2. The World Wide Web (WWW) is a large information system where you can surf and get information. It consists of several public and private websites which may be interlinked and accessible over the Internet worldwide. WWW is also known as Web.

3. Malware is a malicious software. It refers to software programs designed to damage or carryout other unwanted actions on a computer system.

   Most of the malware programs are distributed over the Internet, often bundled with other software.

4. um = float(input("Enter the distance measured in centimeter : "))

   """ 1 inch = 2.54 centimeters"""

   inc = num/2.54

   print("Distance in inch : ", inc)

5. AI goals include learning, reasoning and creating awareness. AI is being used by many industries which also includes finance and healthcare. This way, AI can be connected in a wide range of economic sectors and manage environmental impacts and climate change. It can help in improving productivity which in turn may help in reaching the goal of ending poverty.

C. CS_Marks = int(input("Enter marks of Computer Science: "))

   English_Marks = int(input("Enter marks of English: "))

   Science_Marks = int(input("Enter marks of Science: "))

   Total = CS_Marks + English_Marks + Science_Marks

   Average = Total/3

   print("Total marks:", Total)

   print("Average marks:", Average)