Class 6

Answer Key

Touchpad Plus (3.2)

1. Advanced Features of Ubuntu

Checkpoint

A. 1. a 2. b 3. d 4. a

B. 1. Dock 2. Trash 3. Maximize 4. Aero Flip

C. 1. T 2. F 3. T 4. T

D. 1. The Sneak feature of Ubuntu shows you on the dock a preview of the applications that are open.

2. Control Buttons are used to minimize, maximize and close the active application window

3. Status bar shows various information about the file in which you are working.

4. Components of an active application window are Menu Bar, Toolbar, Work Area, Vertical Scroll Bar, Border, etc.

E. 1. Sneak feature shows you on the dock a preview of the application windows that are open. Aero Flip feature shows you what is happening in all other open application windows on the computer system.

2. To open Settings, follow these steps:

Step 1 Click on Show Apps button.

Step 2 Locate and click on Settings. This will open Settings window.

3. To change the date of the computer, follow these steps:

Step 1 Click on the System option from the right pane of the Settings window.

Step 2 Click on Date & Time under the System section. The Date & Time window will open.

Step 3 Click on the toggle button to turn off Automatic Date & Time and Automatic Time Zone if enabled.

Step 4 Select the Time Format in which you want to display the time.

Step 5 Click on the Date & Time option. A dialog box will open.

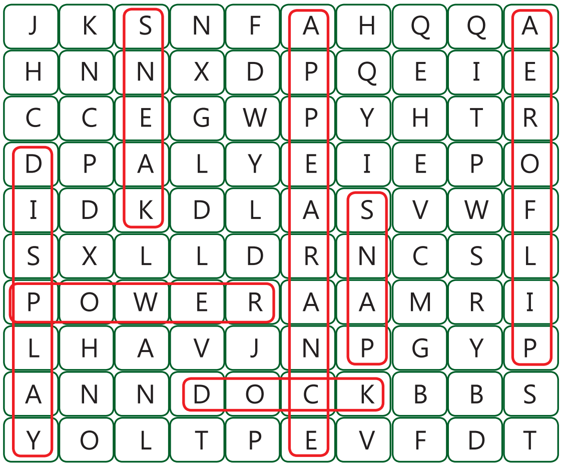
Step 6 Click on the Time field to manually adjust the time, or use the buttons to change the time.

Mind Boggler

A. 1. Ashish can use the Mouse & Touchpad option from the left pane of the Settings window to configure his mouse.

2. Naveen can use Auto-hide the Dock toggle button to switch on the hide the dock automatically when it is not being used.

B.



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

2. More on LibreOffice Impress

Checkpoint

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

B. 1. one or more 2. presentations 3. animation 4. slide

C. 1. F 2. T 3. F 4. F

D. 1. Animations are used in Impress to make a presentation more interesting. They help in giving a moving effect to the text and other objects on a slide.

2. Slide transition determines how your presentation moves from one slide to the next.

3. Slide transition determines how your presentation moves from one slide to the next. On the other hand, Animations are used in Impress to make a presentation more interesting.

E. 1. A template is a set of predefined layouts that can be used to add a professional touch to your presentation.

You can also customise the existing templates or build your own templates.

2. a. Steps to insert an audio to a slide:

Step 1 Click on the Insert menu.

Step 2 Select the Audio or Video option

Step 3 Navigate and select the audio file to be inserted and click on the Open button.

b. Steps to start the slide show from the current slide:

Step 1 Click on the Slide Show menu.

Step 2 Select either Start from Current Slide.

Step 3 Click the mouse to move to the next slide during the slide show.

3. Steps to apply animation:

Step 1 Click on the Animation button on the Sidebar.

Step 2 Select on the image or the text you would like to animate.

Step 3 Click on the Animations tab.

Step 4 Click on the Add Effect button in Animation panel.

Step 5 Select an animation from the Effect list.

Mind Boggler

A. 1. Sumit can use a template to create a presentation using a predefined layout.

2. Pooja can use the Custom Animation feature in Impress to make different objects on her slide appear in different ways during the slide show.

B.

			1								
			T	E	M	P	L	A	T	E	S
			R								
		2	A	N	I	M	A	T	I	O	N
			N					5			
		3	S	L	I	D	E	S	H	O	W
			I					H			
			T					I			
4	S	L	I	D	E			F			
			O					T			
			N								

Periodic Assessment-1

(Based on chapters 1 & 2)

A. 1. T 2. F 3. T 4. T 5. F 6. F

B. 1. Appear, Fly In

2. Disappear, Fly Out

3. Change Fill Color, Grow and Shrink

4. Curve, Polygon

C. 1. A template is a set of predefined layouts that can be used to add a professional touch to your presentation.

2. Control buttons allow users to perform specific actions. These buttons are typically located in the window's title bar, often in the top-right or top-left corner of the window.

3. Slides can be run one after the other to form a slide show. The Slide Show menu will let you set up how your show will progress.

4. In the Dock section of Ubuntu Desktop window, Autohide the dock toggle slider is switched on to hide the dock automatically when it is not being used.

D. 1. F5 2. Windows key 3. Shift + F5

3 More on Writer

Checkpoint

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

B. 1. Page 2. Watermark 3. Paragraph 4. Line 5. Page orientation

C. 1. T 2. T 3. T 4. F

D. 1. The two types of orientations in LibreOffice Writer:

Portrait: When the shorter edge is on the top.

Landscape: When the longer edge is on the top.

2. Header is the text that appears at the top of each page of the document.

3. Page Margins are used to add blank space around the text of the document so it is easy to bind the papers.

E. 1. Steps to add a footer:

Step 1: Click on the Insert menu.

Step 2: Hover the mouse over the Header and Footer option.

Step 3: Select the Footer → Default Page Style option.

Step 4: Type the text you want to appear at the bottom of each page of the document.

Step 5: Click anywhere on the document outside the footer section to close the footer.

2. The Mail Merge feature is used to send personalised copies of the same letter to many recipients. It saves a lot of time, as you do not need to change the information for every person manually.

3. Steps to use the Find & Replace feature:

Step 1: Click on the Edit menu.

Step 2: Select the Find and Replace option.

Step 3: Type the existing word or phrase that is to be changed in the Find text box.

Step 4: Type the new word or phrase in the Replace text box.

Step 5: Click on the Find Next and Replace buttons for selective replacement of the text or click on the Replace All button to replace all the occurrences of the text with the new text.

4. Steps to insert a mathematical equation:

Step 1: Click on the Insert menu.

Step 2: Hover the mouse over the OLE Object option.

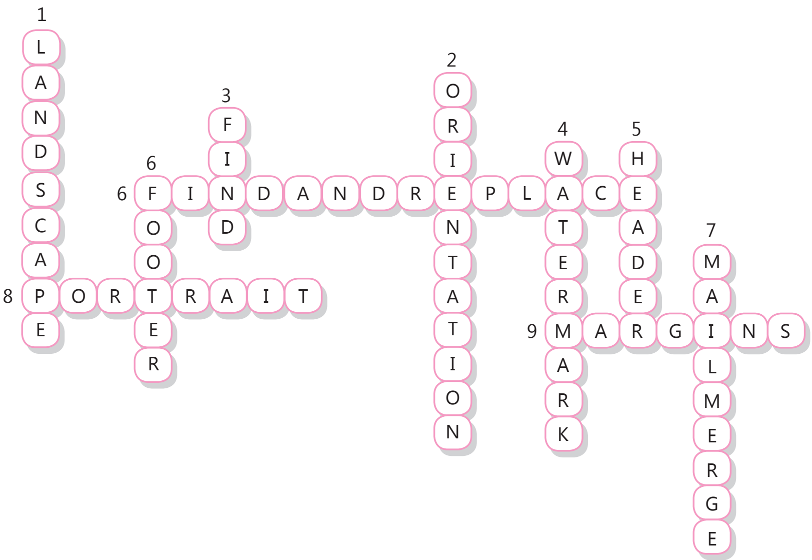
Step 3: Select the Formula Object option.

Step 4: Click on an operator and type the digits.

Mind Boggler

A. 1. Mail Merge 2. Watermark

B.


1 LANDSCAPE
2 ORIENTATION
3 FIND
4 WATERMARK
5 HEADER
6 FOOTER
6 FINDANDREPLACE
7 MAILMERGE
8 PORTRAIT
9 MARGINS

4. More on LibreOffice Calc

Checkpoint

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

B. 1. Calc 2. Create 3. Workbook 4. Merge cells 5. Tab Color

C. 1. T 2. T 3. T 4. T 5. T

D. 1. Spreedsheet is a program which is used to organise, analyse and store data in tabuler form.

2. The vertical divisions on a worksheet are called columns. There are 1,024 columns in a Calc worksheet.

3. AutoFill feature automatically fills a series of data in your worksheet.

E. 1. Displaying multiple lines of text inside a cell using Wrap Text feature is called wrapping of text. Wrapping text in a cell does not affect other cells. Perform the below steps to use the Wrap Text feature:

Step 1: Click on the cell in which you want to wrap the text.

Step 2: Click on the Format menu.

Step 3: Select the Text → Wrap Text option. The text in your cell will be wrapped.

2. Steps to change the row height and column width:

Step 1: Select the column(s) or row(s) that you want to change.

Step 2: Click on the Format menu.

Step 3: Hover mouse pointer over the Columns or Rows option.

Step 4: Select the Height or Width option.

Step 5: Enter the value that you want your column or row to be in the Column Width or Row Height box.

3. Steps to apply Cell Borders:

Step 1: Select a cell or range of cells that you want to add a border to or change the border style on.

Step 2: Click on the Format menu.

Step 3: Select the Cells option and click on the Borders tab.

Step 4: Select a Style, Color and Width for the border in the Line section.

Step 5: Click on one of the options under Presets section.

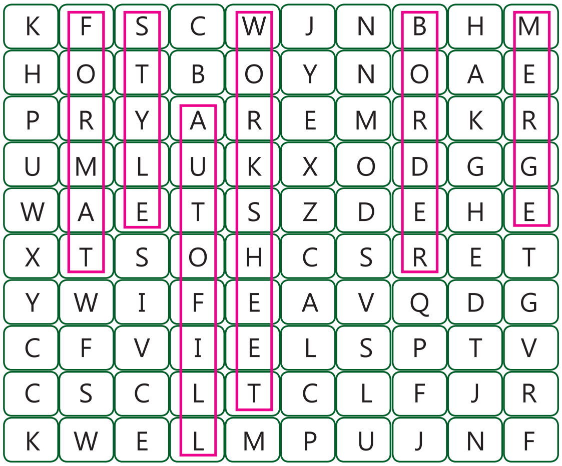
Step 6: Click on the OK button.

Mind Boggler

A. 1. Sonia can enable text wrap, merge cells, or increase the column width to make the full text visible in the cell.

2. Anaya can insert a new column in the marksheet to create space for entering the marks of the missing subject.

B.



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

5. Introduction to HTML5 & CSS3

Checkpoint

A.	1. a	2. c	3. c	4. d	5. c
B.	1. Markup	2. Empty	3. Body	4. Inline	5. Background-image
C.	1. F	2. F	3. T	4. F	5. T

D. 1. HTML stands for Hypertext Markup Language. It is a markup language that describes the structure of a web page.

2. Riya will not get an error because HTML is case-insensitive.

3. Tags are the basic building blocks of a web page. They tell the browser how the information is to be displayed on the web page.

E. 1. Somya should use the color property in an external CSS file, targeting the <body> tag to change the text color across the entire webpage (or website).

2
```
<head>
<link rel=”stylesheet” type=”text/css” href=”mystyle.css”>
</head>
```

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

Mind Boggler

A. 1. `CSS syntax:`

```
selector {
  property: value;
}
```

Explanation:

- selector – The HTML element you want to style (e.g., body, p, h1)
- property – The style attribute (e.g., color, font-size)
- value – The value assigned to the property (e.g., blue, 16px)

2. Ravi used double quotation marks around the color name “green”, which is not valid in CSS for named colors.

Correct code:

```
body {
    background-color: green;
}
```

3. F5 Key

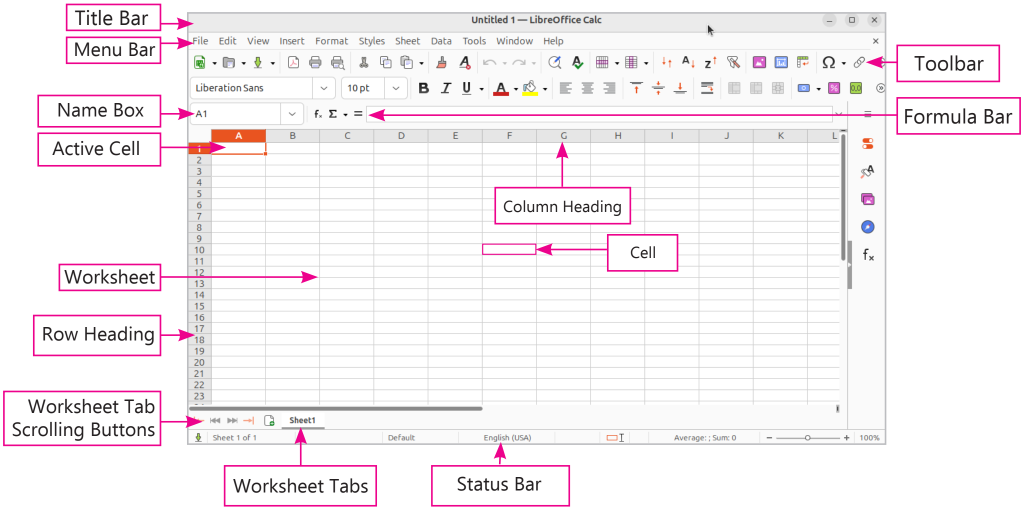
B. 1. HTML5
2. Markup Language
3. Element
4. Attribute
5. Selector

Periodic Assessment-2

(Based on chapters 3 to 5)

A. 1. F 2. T 3. F 4. T

B.


Title Bar
Menu Bar
Toolbar
Name Box
Formula Bar
Active Cell
Column Heading
Cell
Worksheet
Row Heading
Worksheet Tab Scrolling Buttons
Worksheet Tabs
Status Bar
Untitled 1 — LibreOffice Calc
File Edit View Insert Format Styles Sheet Data Tools Window Help
Liberation Sans
10 pt
A1
Sheet1
Sheet 1 of 1
Default
English (USA)
Average: ; Sum: 0
100%

C.

```
<!DOCTYPE html>
<html>
<head>
<title>My Name</title>
<style>
  body {
   background-color : red;
         color      : white;
     }
</      style      >
</head>
<body>
  My name is Amit
</body>
</      html      >
```

Test Sheet-1

(Based on chapters 1 to 5)

Section A

A. 1. b 2. d 3. d 4. c 5. d 6. d 7. c 8. c

B. 1. Dock 2. Trash 3. Presentations 4. Animation 5. Line
6. Tab Color 7. Body 8. Inline

C. 1. T 2. F 3. F 4. T 5. T
6. T 7. T 8. F

Section B

A. 1. Control Buttons are used to minimize, maximize and close the active application window.

2. Slide transition determines how your presentation moves from one slide to the next.

3. Animations are used in Impress to make a presentation more interesting. They help in giving a moving effect to the text and other objects on a slide.

4. Page Margins are used to add blank space around the text of the document so it is easy to bind the papers.

5. The two types of orientations in LibreOffice Writer:

Portrait: When the shorter edge is on the top.

Landscape: When the longer edge is on the top.

6. Spreedsheet is a program which is used to organise, analyse and store data in tabuler form.

7. AutoFill feature automatically fills a series of data in your worksheet.

8. HTML stands for Hypertext Markup Language. It is a markup language that describes the structure of a web page.

B. 1. Sneak feature shows you on the dock a preview of the application windows that are open. Aero Flip feature shows you what is happening in all other open application windows on the computer system.

2. To apply animation to text or objects, follow the below steps:

Step 1: Click on the Animation button on the Sidebar.

Step 2: Select on the image or the text you would like to animate. To select a whole text box, click on the border of the text box. It will automatically send in the text by paragraphs unless you highlight all the text in the box, in which case it all comes in at the same time.

Step 3: Click on the Add Effect button in Animation panel.

Step 4: Select a category from Category drop-down list.

Step 5: Select an animation from the Effect list.

Step 6: Impress automatically shows preview of the effect of the selected animation. To again see the animation effect, click on the Play button in Animation panel.

3. A template is a set of predefined layouts that can be used to add a professional touch to your presentation. LibreOffice Impress provides a variety of options such as predefined colour palettes, fonts, backgrounds and formatting effects for designing and formatting a presentation. You can also customize the existing templates or build your own templates.

4. The Mail Merge feature is used to send personalised copies of the same letter to many recipients. It saves a lot of time, as you do not need to change the information for every person manually.

5. Steps to insert a mathematical equation:

   Step 1: Click on the Insert menu.

   Step 2: Hover the mouse over the OLE Object option.

   Step 3: Select the Formula Object option.

   Step 4: Click on an operator and type the digits.

6. Steps to change the row height and column width:

   Step 1: Select the column(s) or row(s) that you want to change.

   Step 2: Click on the Format menu.

   Step 3: Hover mouse pointer over the Columns or Rows option.

   Step 4: Select the Height or Width option.

   Step 5: Enter the value that you want your column or row to be in the Column Width or Row Height box

7. Displaying multiple lines of text inside a cell using Wrap Text feature is called wrapping of text. Wrapping text in a cell does not affect other cells. Perform the below steps to use the Wrap Text feature:

   Step 1: Click on the cell in which you want to wrap the text.

   Step 2: Click on the Format menu.

   Step 3: Select the Text → Wrap Text option. The text in your cell will be wrapped.

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

6. Introduction to Tupi 2D

Checkpoint

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

B. 1. Player 2. Library 3. Toolbox 4. Exposure sheet

C. 1. F 2. T 3. T 4. T

D. 1. Animation is a way through which you can show characters and objects live.

2. Exposure Sheet contains the Timeline panel. It is used to manage layers and frames. It helps in adding, editing and removing the frames and layers from all your scenes in the animation project.
3. Components of Tupi 2D interface are Workspace and Toolbox.

E. 1. Features of Tupi 2D software:
   - It is an open source and free software.
   - It allows you to use vector graphics like ellipses, lines, rectangles and polygons.
   - It also allows us to draw paths with the help of pen or pencil tool.
   - It allows you to import and use Bitmap images as either static backgrounds or animated objects.

2. Left Side Bar component has three expandable panels that are related to Animation module.
   - Color Palette: This panel contains the options to manage colours. Using this palette, you can set the colour of the brush, fill colour in the objects.
   - Pen Properties: This panel contains all the settings related to the Pen tool. It helps to change the size and texture of the stroke.
   - Library: This panel contains the library of all the visual/audio objects of your animation projects. It also helps us to import external items like images (JPG, PNG, GIF and SVG files) directly to the workspace.

3. Steps to open on existing project in Tupi 2D:

   Step 1: Click on the File menu.

   Step 2: Click on Open Project option.

   Step 3: Select the project from the desired location that you want to open.

   Step 4: Click on the Open button.

Mind Boggler

A. 1. Sunita should click on the Close Project to close the opened project.

2. Scenes Manager

B. 1. Tupi 2D Welcome Screen

2. Expanded Panel

3. Color Palette

4. .tup

7. Internet Services and Cybercrimes

Checkpoint

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

B. 1. Carding 2. E-greeting 3. Chat 4. Cyber Security

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

D. 1. Phreaking crime targets telephone companies using computers to achieve goals such as making free long-distance calls, impersonating directory assistance or other operator services, diverting calls to the perpetrator's chosen numbers, or tapping phone lines.

2. A newsgroup is a type of discussion group focused on a specific topic of interest to all participants.

3. Social networking can be helpful for students if used responsibly, but overuse may lead to distractions and risks like cyberbullying.

4. Computer hacking involves altering computer hardware and software to achieve goals beyond their original design.

5. Cloud storage is a service that allows users to store and manage data on a remote server rather than on a local computer.

E. 1. When using Internet services, it's important to follow these key guidelines to stay safe:

- Never share personal information like your address, phone number, or school details.
- Always keep your browser's privacy settings turned on.
- Use the Internet only when your elders are present.
- Keep your passwords private, except with your parents or teachers.

2. Different types of communication techniques are as follows:

- E-mail – Sends messages and files instantly to one or more people via the internet.
- Video Conferencing – Allows face-to-face communication between people in different places using audio and video.
- VoIP – Enables voice calls over the internet, often at a lower cost.
- Chatting – Involves quick text message exchanges over the internet.
- Social Networking – Lets users connect, share content, and interact based on common interests.

3. Hacking is the act of gaining unauthorized access to a computer system or network, which can be ethical or unethical. Cracking specifically refers to breaking into software or systems to remove protections like passwords or licenses, usually for malicious intent.

Hackers may explore systems for knowledge or testing security, while crackers often aim to damage or steal. In short, all crackers are hackers, but not all hackers are crackers.

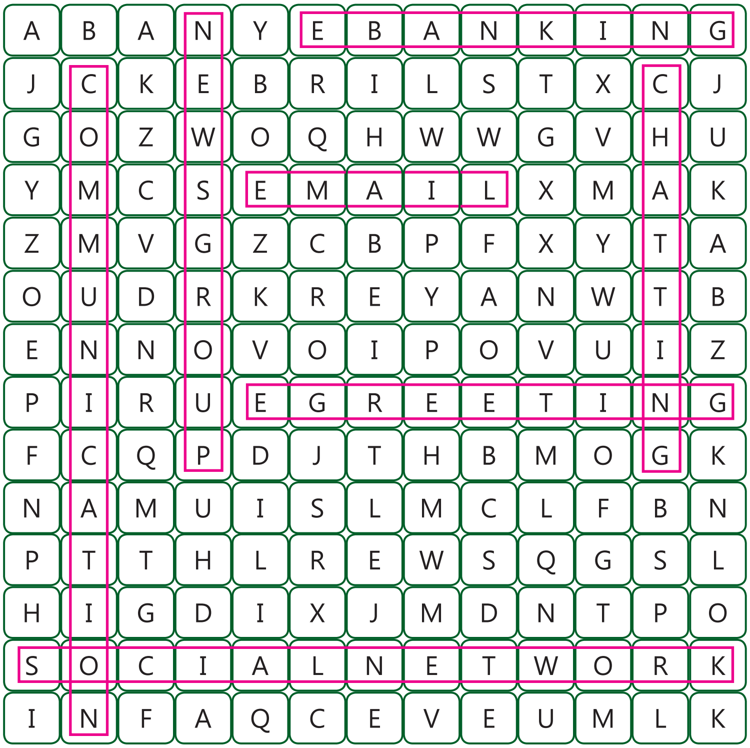
4. The different types of cyber threats are as follows:
    - Data Diddling – Altering data before input or after processing to manipulate outcomes.
    - Phreaking – Using computers to exploit telephone systems for free calls or unauthorized access.
    - Cloning – Copying a phone's electronic identity to make calls charged to the original owner.
    - Carding – Stealing credit card details online for resale or unauthorized purchases.
    - Hacking – Modifying computer systems to bypass intended functions or gain access.
    - Ethical Hacking – Using hacking skills legally to find and fix system vulnerabilities.
    - Cracking – Illegally breaking into systems to steal data or tamper with software and security.

Mind Boggler

A. 1. The fastest way for Ajay to send money to Rakesh is through online banking, using services like NEFT, IMPS, or UPI, which allow instant fund transfers.

2. Simran's family can use cloud storage to safely store their important photos and documents and access them from any device, anywhere.

B.

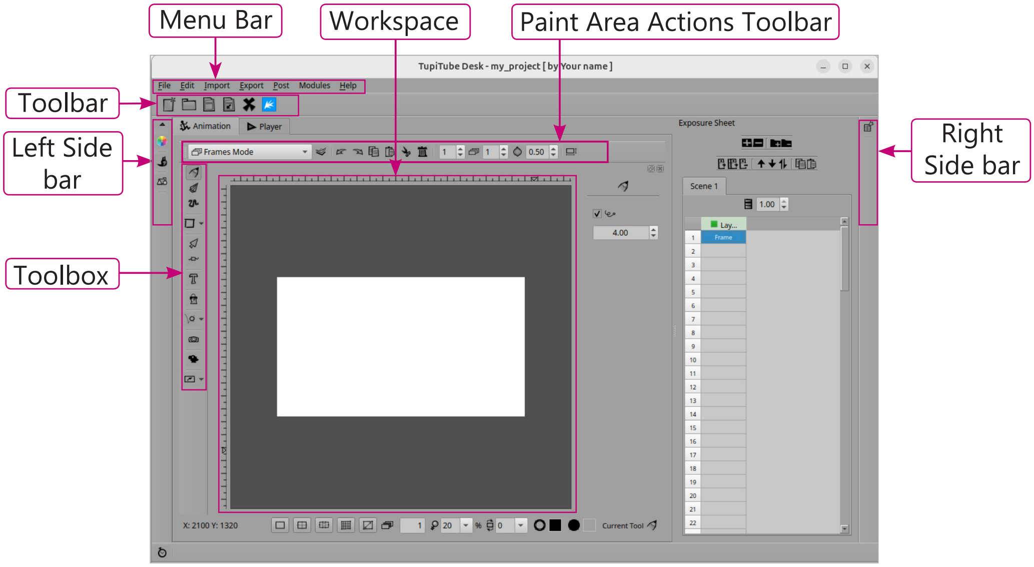


A	B	A	N	Y	E	B	A	N	K	I	N	G
J	C	K	E	B	R	I	L	S	T	X	C	J
G	O	Z	W	O	Q	H	W	W	G	V	H	U
Y	M	C	S	E	M	A	I	L	X	M	A	K
Z	M	V	G	Z	C	B	P	F	X	Y	T	A
O	U	D	R	K	R	E	Y	A	N	W	T	B
E	N	N	O	V	O	I	P	O	V	U	I	Z
P	I	R	U	E	G	R	E	E	T	I	N	G
F	C	Q	P	D	J	T	H	B	M	O	G	K
N	A	M	U	I	S	L	M	C	L	F	B	N
P	T	T	H	L	R	E	W	S	Q	G	S	L
H	I	G	D	I	X	J	M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

Periodic Assessment 3

(Based on chapters 6 & 7))

A.


Menu Bar
Workspace
Paint Area Actions Toolbar
Toolbar
Left Side bar
Right Side bar
Toolbox
TupiTube Desk - my_project [by Your name]
File Edit Import Export Post Modules Help
Animation
Player
Frames Mode
Exposure Sheet
Scene 1
Current Tool

B. 1. Alt + F4

2. Ctrl + Q

C. 1. Phishing is a cyber attack that tricks users into revealing personal information. It often uses fake emails or websites that look real. The aim is to steal data like passwords or bank details.

2. Exposure sheet contains the Timeline panel. It is a standard tool to manage layers and frames. It helps in adding, editing and removing the frames and layers from all your scenes in the animation project.

3. Cloning refers to a fraud where scanners are used to steal the electronic serial numbers of cell phones. These stolen numbers can be used to create clones that make free calls, with the charges billed to the original phone's owner.

4. Workspace is the main working area where we create, design and create animations. It is also called Paint area.

8. Algorithm and Flowchart

Checkpoint

A. 1. b 2. b 3. b 4. b 5. d

B. 1. Algorithm 2. Connectors 3. Consistent 4. Instructions 5. input

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

D.

1. An algorithm is a set of steps in a sequential manner to solve a problem or to complete a task.
2. A flowchart is a type of graphical diagram that represents an algorithm. It is a set of instructions that can be followed to perform a specific task, workflow or process.
3. In algorithm each step is precisely defined.
4. It shows a process or action step. This is the most common symbol used in flowcharts.

E.

1. You must follow these basic rules while drawing a flowchart:
   - The flowchart should be clear, neat and easy to follow.
   - Maintain the direction of the flow from left to right or top to bottom.
   - Only one flow line should come out from a process symbol.
   - Ensure that only one flow line should enter a decision symbol, but two flow lines should leave the decision box.
   - Ensure that the flowchart has a logical start and end.
2. Flowcharts provide following advantages:
   - It provides a better understanding of a problem.
   - It facilitates a programmer to analyse the problem in detail.
3. Process: It shows a process or action step. This is the most common symbol used in flowcharts.

   Input/Output: It represents material or information entering or leaving the system, i.e., input and output.

F.

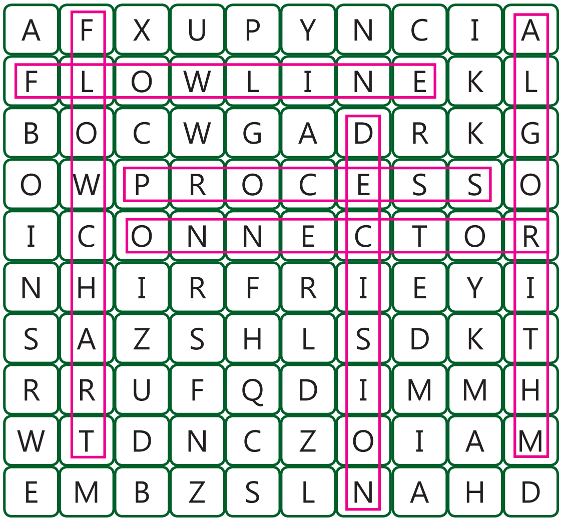
```
Step 1: Start
Step 2: Read a number and store it in N
Step 3: If N ≤ 1, then
        Print "N is not a Prime Number" and go to Step 7
Step 4: Set Count = 0
Step 5: Repeat from i = 1 to N
        If N % i == 0, then increase Count by 1
Step 6: If Count == 2, then
        Print "N is a Prime Number"
        Else
        Print "N is not a Prime Number"
Step 7: Stop
```

Mind Boggler

A. 1. (i) Input/output (ii) Process (iii) Input/output

2. She should make algorithm first

B.



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

9. Introduction to Python

Checkpoint

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

B. 1. Guido van Rossum 2. Assignment 3. String 4. Input()

5. False

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

D. 1. A variable named a is being assigned the value 8.

2. Variables are memory reference points where we store values which can be accessed or changed later.

3. A data type specifies the type of value a variable can contain. For example, a person's name must be stored as a string value whereas the person's age must be stored as an integer.

4. Precedence of operators determines the order in which the operators are executed.

5. IDLE stands for Integrated Development and Learning Environment.

E. 1. Relational operators are used to compare two values or expressions. These operators return a Boolean value: either True or False, depending on whether the condition is satisfied.

- Equal to (==):

This operator checks if two values are equal.

Example: 5 == 5 returns True

- Not equal to (!=):

This operator checks if two values are not equal.

Example: 7 != 3 returns True

- Greater than (>):

This operator checks if the value on the left is greater than the value on the right.

Example: 10 > 4 returns True

- Less than (<):

This operator checks if the value on the left is less than the value on the right.

Example: 2 < 9 returns True

- Greater than or equal to (>=):

This operator checks if the value on the left is greater than or equal to the value on the right.

Example: 6 >= 6 returns True

- Less than or equal to (<=):

This operator checks if the value on the left is less than or equal to the value on the right.

Example: 4 <= 5 returns True

2. Comments in Python can be used to explain parts of the code. It can also be used to hide the code as well. Comments enable us to understand the way a program works. In Python, any statement starting with # symbol is known as a comment. Python does not execute comments. Comments are not a part of the program, but they do enhance the interactivity of the program and make it readable. Python supports two types of comments: Single line comment and Multiline comment.

3. Python has two basic programming modes—Script Mode and Interactive Mode.

Interactive Mode: Interactive Mode is a command-line shell that gives an immediate result for each command. In Interactive mode, we type one command at a time. Python executes the given command and displays the output.

Script Mode: The Interactive Mode does not save the commands entered by the user as a program. The Script Mode saves the commands entered by the user in the form of a program.

Mind Boggler

A. 1. Lara is getting string concatenation instead of addition because the input() function returns strings. She needs to convert the inputs to integers using int() before performing the addition.

2. ** (Exponentiation operator)

B. 1. 2.0

2. 12

3. 10 20 30

4. 6

5. 4

True

10. Intelligence and AI approaches

Checkpoint

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

B. 1. Interpersonal 2. Machine Learning 3. Virtual Assistant 4. Intelligence

5. Howard

C. 1. T 2. F 3. T 4. T

D. 1. These people possess the following qualities:

- Good at dancing and sports
- Love creating things with their hands
- Tend to remember by doing, rather than hearing and seeing
- Excellent hand-eye and physical coordination
- Flexible in different body movements and performing actions

2. A rule-based system uses rules as knowledge representation. These rules are coded a form of the system into the form of if-then-else statements, which help the computer in taking decisions.

3. Intelligence refers to the ability to think, to learn from previous experiences, to solve complex problems and adapt to new things and environment.

E. 1. The aim of AI is to simulate the human attributes such as logical intelligence, reasoning and knowledge acquirement in machines. We have been experiencing how this works in the form of a virtual assistants like Siri, Alexa, and Chatbots.

Generally, AI models have two kinds of approaches:

- Rule-based approach
- Learning-based approach

2. Interpersonal Intelligence
   - It is the ability to understand and interact well with others.
   - People with this intelligence are good at communicating, empathizing, and working in teams.

   Intrapersonal Intelligence
   - It is the ability to understand oneself, including one's own emotions, goals, and motivations.
   - People with this intelligence are good at self-reflection and often enjoy analysing theories and ideas.
3. Naturalistic Intelligence people possess the following qualities:
   - Nature lover
   - Love exploring the environment and learning about other species
   - Enjoy camping, gardening, hiking and exploring outdoors

Mind Boggler

A. 1. Naturalistic Intelligence

2. Interpersonal Intelligence

B. 1. 64

2. 141

3. A seed

Naturalistic Intelligence: This riddle connects with plants, growth, nature, and life cycles, all of which relate to naturalistic intelligence — the ability to recognize, understand, and work with elements of the natural world.

C. Do it yourself.

Periodic Assessment 4

(Based on chapters 8 to 10)

A. 1. It is used to show the stop points of the flowchart. It usually contains the words 'Stop'.

2. Used to take input (values or data) from the user — in this case, values of A and B.
3. A decision symbol used to check a condition — here, whether A is greater than B.
4. Used to display output — here, it prints the value of A on the screen.
5. Shows the direction of flow or the sequence of steps in the process.

B. 1. v. 2. iii. 3. i. 4. ii. 5. iv.

C.

```
sub1 = int(input("Enter the marks of first subject: "))
sub2 = int(input("Enter the marks of second subject: "))
sub3 = int(input("Enter the marks of third subject: "))
sub4 = int(input("Enter the marks of fourth subject: "))
sub5 = int(input("Enter the marks of fifth subject: "))
avg = (sub1 + sub2 + sub3 + sub4 + sub5) / 5
print("Average of marks is:", avg)
```

Test Sheet 2

(Based on chapters 6 to 10)

Section A

A. 1. a 2. c 3. d 4. d 5. b 6. d 7. c 8. a

B. 1. Toolbox 2. Exposure Sheet 3. Chat 4. Consistent 5. Instructions 6. String 7. Input() 8. Virtual Assistant

C. 1. T 2. T 3. F 4. T 5. F 6. T 7. F 8. T

Section B

A. 1. Exposure Sheet contains the Timeline panel. It is used to manage layers and frames. It helps in adding, editing and removing the frames and layers from all your scenes in the animation project.

2. Phreaking crime targets telephone companies using computers to achieve goals such as making free long-distance calls, impersonating directory assistance or other operator services, diverting calls to the perpetrator's chosen numbers, or tapping phone lines.

3. Computer hacking involves altering computer hardware and software to achieve goals beyond their original design.

4 Flowchart is a graphical representation of the sequence of operations in an information system or program.

5. It shows a process or action step. This is the most common symbol used in flowcharts.

6. Variables are memory reference points where we store values which can be accessed or changed later.

7. Intelligence refers to the ability to think, to learn from previous experiences, to solve complex problems and adapt to new things and environment.

8. These people possess the following qualities:
    - Good at dancing and sports
    - Love creating things with their hands
    - Tend to remember by doing, rather than hearing and seeing
    - Excellent hand-eye and physical coordination
    - Flexible in different body movements and performing actions

B. 1. Left Side Bar component has three expandable panels that are related to Animation module.
    - Color Palette: This panel contains the options to manage colours. Using this palette, you can set the colour of the brush, fill colour in the objects.
    - Pen Properties: This panel contains all the settings related to the Pen tool. It helps to change the size and texture of the stroke.
    - Library: This panel contains the library of all the visual/audio objects of your animation projects. It also helps us to import external items like images (JPG, PNG, GIF and SVG files) directly to the workspace.

2. Different types of communication techniques are as follows:
    - E-mail – Sends messages and files instantly to one or more people via the internet.
    - Video Conferencing – Allows face-to-face communication between people in different places using audio and video.
    - VoIP – Enables voice calls over the internet, often at a lower cost.
    - Chatting – Involves quick text message exchanges over the internet.
    - Social Networking – Lets users connect, share content, and interact based on common interests.

3. Flowcharts provide following advantages:
    - It provides a better understanding of a problem.
    - It facilitates a programmer to analyse the problem in detail.

4. You must follow these basic rules while drawing a flowchart:
    - The flowchart should be clear, neat and easy to follow.
    - Maintain the direction of the flow from left to right or top to bottom.
    - Only one flow line should come out from a process symbol.
    - Ensure that only one flow line should enter a decision symbol, but two flow lines should leave the decision box.
    - Ensure that the flowchart has a logical start and end.

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   Generally, AI models have two kinds of approaches:

   - Rule-based approach
   - Learning-based approach

8. Hacking is the act of gaining unauthorized access to a computer system or network, which can be ethical or unethical. Cracking specifically refers to breaking into software or systems to remove protections like passwords or licenses, usually for malicious intent. Hackers may explore systems for knowledge or testing security, while crackers often aim to damage or steal. In short, all crackers are hackers, but not all hackers are crackers.