

1. Number System



Take Off

(Page no. 11)

Do it yourself



Double Tap

(Page no. 15)

$$\begin{aligned}
 1. (1000.10)_2 &= 1 * 2_3 + 0 * 2_2 + 0 * 2_1 + 0 * 2_0 + 1 * 2^{-1} + 0 * 2^{-2} \\
 &= 1 * 8 + 0 + 0 + 1 * 0.5 + 0 \\
 &= (8.5)_{10}
 \end{aligned}$$

$$\begin{array}{r|l}
 2 & 30 \\
 \hline
 2 & 15 & -0 \\
 \hline
 2 & 7 & -1 \\
 \hline
 2 & 3 & -1 \\
 \hline
 & 1 & -1 \\
 \hline
 \end{array}$$

$$(30)_{10} = (11110)_2$$



Choose the correct option.

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



Tick (✓) the correct statements and cross (x) the wrong ones.

1. (This question was printed incorrectly in the book. Please correct it in your textbook.)

Question: A number system is a collection of numbers used to describe various quantities.

Ans. ✓

2. x 3. ✓ 4. ✓ 5. ✓



-

Scratch Your Brain.

- ## 2.

2. Advanced Features of Excel



(Page no. 20)

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



Plus (Ver. 4.0)-VII (Answer Key)



1. ✓ 2. ✕ 3. ✕ 4. ✓



Choose the correct option.

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



Tick (✓) the correct statements and cross (✕) the wrong ones.

1. ✕ 2. ✕ 3. ✕ 4. ✓ 5. ✕



Fill in the blanks with the correct words.

1. Insert 2. Cell Styles 3. Select All 4. Merge & Center



Answer the following questions:

1. Sorting of data means to organise the data in ascending or descending order.
2. The filters once applied can be easily removed. Click anywhere in the worksheet and repeat steps to apply filters. You will notice that the filter arrows in front of column headers disappear and the hidden rows also reappear.
3. Sorting of data means to organise the data in ascending or descending order, whereas Filter is used to separate unwanted material from a mixture.
4. To apply conditional formatting to a series of data, follow these steps:
Step 1: Select the data and click on the Conditional Formatting command.
Step 2: Select the desired conditional formatting.
Step 3: Now select the desired option to apply on the selected cell range.



Scratch Your Brain.

1. a. Editing Group
b. Filtering Data
c. Sorting
d. Conditional Formatting
e. Sort Smallest to Largest
2. Do it yourself.

3. **Competency-based/Application-based questions:**

- a. Sort A to Z
- b. Sort A to Z
- c. Filter Data

Periodic Assessment 1

(Based on chapters 1 & 2)

A. Rewrite the incorrect statements.

- 1. The right-most digit of the number is called LSD.
- 2. Hexadecimal number system consists of 16 digits from 0–9 and A to F.
- 3. (This question was printed incorrectly in the book. Please correct it in your textbook.)

Question: Sorting data means to organise the data in ascending order only.

Ans. Sorting data means to organise the data in ascending or descending order.

B. Circle the odd one out.

- | | | | |
|------------|-------|------------|--------|
| 1. Decimal | Octal | Scientific | Binary |
| 2. Int | Bit | Nibble | Byte |

C. Match the following:

- | | | | | |
|-------|-------|-------|-------|-------|
| 1. c. | 2. e. | 3. b. | 4. a. | 5. d. |
|-------|-------|-------|-------|-------|

D. Define the following:

- 1. Sorting of data means to organise the data in ascending or descending order. Excel allows you to sort both numeric and textual data. You can sort the data according to a particular column as well as a range of data.
- 2. Filtering process is used to separate unwanted material from a mixture. Excel also allows you to filter unwanted data from a set of data.
- 3. A Number System is simply a method of counting. There are many number systems in existence. Consider a clock. Clocks have 24 hours, each hour composed of 60 minutes. Each minute is in turn composed of 60 seconds. When you learnt to count, you used the numbers, like 1, 2, 3, etc. Similarly, computers also have their own number system, known as the binary number system.



3. Layers in Krita



Take Off

(Page no. 30)

Do it yourself.



Double Tap

(Page no. 35)

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



Choose the correct option.

1. a. 2. b. 3. d.



Tick (✓) the correct statements and cross (✗) the wrong ones.

1. ✓ 2. ✗ 3. ✓



Answer the following questions:

1. Layers are transparent sheets containing objects which are stacked on top of each other so that the individual properties of an object are preserved. The layers help to edit an object without affecting the other objects.
2. Layers are useful in Krita as the layers help edit an object without affecting other objects.
3. To use the multiple Layers in a file , follow the given steps:
Step 1: Insert an image into the file as a new layer.
Step 2: click on the SVG Text Tool and add some text anywhere over the image.
New object can be added as separate layers without affecting the properties of the objects in the other layer.



Scratch Your Brain.

1.



Add Layer



Duplicate Layer



Delete Layer



Close eye
Shaped Icon



Open eye
Shaped Icon

2. **Competency-based/Application-based questions:**

- a. She can add text on another layer and hide or unhide the text using open eye shape icon.
- b. She can delete layer button to removing that layer.

4. Animations in Krita



Take Off

(Page no. 39)

1. Add layer
2. Duplicate layer
3. Delete Layer



Double Tap

(Page no. 43)

1. b.
2. c.
3. a.



Choose the correct option.

1. a.
2. a.
3. b.
4. b.



Tick (✓) the correct statements and cross (✗) the wrong ones.

1. ✓
2. ✗
3. ✓
4. ✗



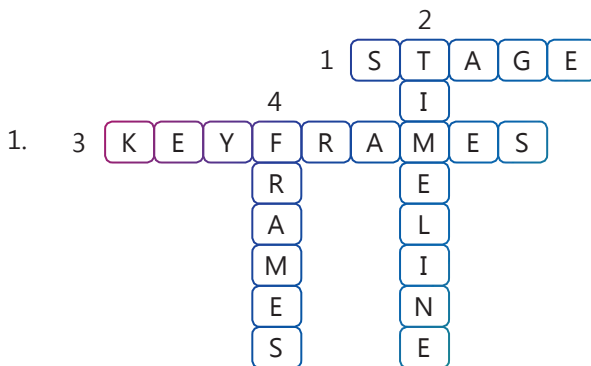
Answer the following questions:

1. To switch to Animation mode, follow these steps:
Step 1: Click on the Choose workspace icon on the top right side of the Toolbar.
Step 2: Click on the Animation option from the list.
2. Timeline is present below the stage. It is a rectangle shape section which is used to control and manage the animation of different objects and layers.
3. Key frames are special frames where some change is defined in the properties of an object. This change can be as change in size, shape, colour, position, etc.





Scratch Your Brain.



2. Competency-based/Application-based questions:

a. To switch to Animation mode, follow these steps:

Step 1: Click on the Choose workspace icon on the top right side of the Toolbar.

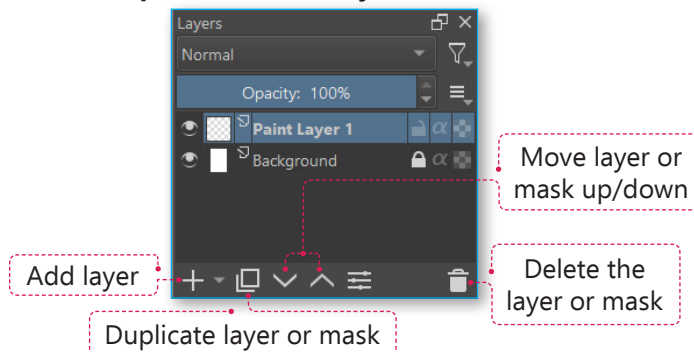
Step 2: Click on the Animation option from the list.

b. She can increase the speed of the animation by using Timeline.

Periodic Assessment–2

(Based on chapters 3 & 4)

A. Write the names of components of the Layers Docker in Krita.



B. Define the following:

1. Animation is a method by which images are manipulated in a manner so that they appear as moving objects.
2. Timeline is present below the stage. It is a rectangle shape section which is used to control and manage the animation of different objects and layers.
3. Keyframes are special frames where some change is defined in the properties of an object. This change can be as change in size, shape, colour, position, etc.



C. Answer the following questions:

1. Dimensions: This tab contains the settings related to the file. The common options under this tab are:

Width and Height: Used to specify the width and height of the new file in pixels, centimeters, inches, millimeters, points and picas.

Resolution: Used to specify the number of pixels per inch. More resolution, makes the image clear while low resolution makes the image blur.

Color Model: Used to specify the number of colors that can appear in the image. You can choose RGB, Grayscale, CMYK and Lab color modes.

Content: This tab contains the settings related to the file. The common options under this tab are:

Name: Used to specify the new name for the Krita file. By default, the name given to the file is 'Unnamed'.

Layers: Used to specify the number of layers in the file. The layers can be added or deleted while working on the file also.

Background Color: Used to specify the initial background color of the new file. Background Opacity: Used to specify the intensity of the background color.

2. The steps to add an object as a new layer in Krita:

Step 1: Click on the Layer menu.

Step 2: Place the mouse pointer over the Import/Export option.

Step 3: Click on the Import Layer option.

Step 4: Locate and select the image file to be added as a new layer.

Step 5: Click on the Open button.

Test Sheet-1

(Based on chapters 1 to 4)

A. Choose the correct option.

- | | | | | | |
|-------|-------|-------|--------|--------|--------|
| 1. b. | 2. a. | 3. b. | 4. b. | 5. b. | 6. b. |
| 7. a. | 8. b. | 9. d. | 10. d. | 11. b. | 12. a. |

C. Tick (✓) the correct statements and cross (×) the wrong ones.

- | | | | | | |
|------|------|------|------|------|------|
| 1. × | 2. ✓ | 3. ✓ | 4. × | 5. ✓ | 6. × |
| 7. ✓ | 8. × | | | | |

D. Answer the following questions.

1. A Number System is simply a method of counting. There are many number systems in existence. Consider a clock. Clocks have 24 hours, each hour composed of 60 minutes. Each minute is in turn composed of 60 seconds. When you learnt to count, you used the numbers, like 1, 2, 3, etc. Similarly, computers also have their own number system, known as the binary 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 will get your binary number.
3. Sorting of data means to organise the data in ascending or descending order, whereas Filter is used to separate unwanted material from a mixture.
 4. To apply conditional formatting to a series of data, follow these steps:
 - Step 1: Select the data and click on the Conditional Formatting command.
 - Step 2: Select the desired conditional formatting.
 - Step 3: Now select the desired option to apply on the selected cell range.
 5. Layers are transparent sheets containing objects which are stacked on top of each other so that the individual properties of an object are preserved. The layers help to edit an object without affecting the other objects.
 6. Insert an image into the file as a new layer, click on the SVG Text Tool and add some text anywhere over the image. New object can be added as separate layers without affecting the properties of the objects in the other layer.
 7. To create an animation of dancing man in Krita, follow these steps:
 - Step 1: Click on the File menu.
 - Step 2: Select the New option.
 - Step 3: Click on the Dimensions tab.
 - Step 4: Change the Width to 1200 pixels.
 - Step 5: Change the Height to 1024 pixels.
 - Step 6: Change the Resolution to 300 pixels/inch.
 - Step 7: Click on the Content tab.
 - Step 8: Change the Background color.
 - Step 9: Select the As canvas color for the Background.
 - Step 10: Click on the Create button.
 - Step 11: Add two new layers and rename them as man and stage.
 - Step 12: Click on the layer 'stage' and draw a stage for dancing.
 - Step 13: Click on the layer 'man'.
 - Step 14: Click on Frame 0 in the timeline.
 - Step 15: Click on Add blank frame button above the timeline.
 - Step 16: Draw a man using different tools.
 - Step 17: Right-click on Frame 6 and select Create Duplicate Frame.
 - Step 18: Click and drag to change the position of man at Frame 6.
 - Step 19: Similarly, create duplicate frame at Frame 12 and change the position of the man.



Step 20: Change the Speed in the Timeline to 200%.

Step 21: Click on the Animation settings menu.

Step 22: Change Clip Start to 0.

Step 23: Change Clip End to 12.

Step 24: Change Frame Rate to 12.

Step 25: Click on the Play button on the Timeline to play the dancing man animation.

8. To switch to Animation mode, follow these steps:

Step 1: Click on the Choose workspace icon on the top right side of the Toolbar.

Step 2: Click on the Animation option from the list.

5. Google Apps



Take Off

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1. Facebook (United States)

2. WhatsApp (United States)

3. Twitter (United States)

4. Instagram (United States)



Double Tap

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Yes, there are several differences between Google Slides and PowerPoint. One difference is that Google Slides is a web-based application that is fully integrated with Google Drive, whereas PowerPoint is a desktop application that is part of the Microsoft Office suite.



Choose the correct option.

1. c.

2. a.

3. b.

4. (This question is printed incorrectly in the book, please correct it in your textbook.)

Question: In which of the following is the "Protected sheets and ranges" option available in Google Sheets?

a. Format

b. Data

c. Tools

d. Add-ons

Ans: b. Data

5. c.



Fill in the blanks with the correct words.

1. Sundar Pichai

2. encryption

3. Share

4. Map, Satellite, Terrain

5. saved



10 Plus (Ver. 4.0)-VII (Answer Key)



-

Scratch Your Brain.

- ## 6. App Development



(Page no. 69)

1. Camera 2. Gallery 3. Clock 4. Calculator 5. Messages



(Page no. 71)

Pinterest: These are actually web applications which give a user with experience similar to native apps.

Camera: This platform dependent which means that these apps are primarily developed for a specific platform.



Choose the correct option.

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



Fill in the blanks with the correct words.

1. hybrid 2. Mobile 3. Android 4. gaming 5. install



Answer the following questions:

- An app is a software program primarily developed for hand-held smart devices such as mobile and tablet. It helps the user to perform their personal and professional tasks more effectively.
- Web apps are actually web applications which give a user with experience similar to native apps. These apps are not deployed on the app store.
- Native apps are platform dependent which means that these apps are primarily developed for a specific platform.
- Gaming Apps:** These apps allow us to improve our cognitive skills such as attention and focus. Some of the gaming apps allow children to learn while playing. These apps also allow us to play games with other friends and share scores on social media. The most commonly used gaming apps are Call of Duty, Candy Crush Saga, and Angry Birds.
 - Productivity Apps:** These apps are also known as business apps used by businessmen to perform several complex tasks. These apps allow businessmen do their work more effectively. The most commonly used productive apps are Google Calendar, Evernote and Dropbox.
 - E-Commerce Apps:** E-commerce means to buy or sell products on an online service over the Internet. E-commerce apps allow us to buy or sell products while sitting at home or any other place. The most commonly used apps are Amazon, Flipkart and Blinkit.
- To change the display name of a button, follow the given steps:
 Step 1: Click on the button in the View pane.
 Step 2: Type a new name for the button in the Text box.
- Educational apps provide a platform for children to learn from anywhere and anytime. These apps use advance methodologies and new concepts to make the learning easier. Some of the educational apps help teachers to support their teaching process. The most commonly used educational apps are Khan Academy, Vedantu, and Grammar EN.



Scratch Your Brain.

- App
 - Hybrid apps
 - Gaming apps
 - Educational apps
 - Communication apps
 - Web apps
- Do it yourself



3. Competency-based/Application-based questions:

- a. Gaming apps
- b. Native apps

7. More on HTML5



Take Off

(Page no. 86)

1. What You See Is What You Get
2. Hyperlink
3. HTML5



Double Tap

(Page no. 90)

Text-align property is used to align the text. Its different values are: left, right, center, justify.



Choose the correct option.

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



Fill in the blanks with the correct words.

1. markup
2. margin
3. <P>
4. <SUB>
5. <SUP>



Tick (✓) the correct statements and cross (✗) the wrong ones.

1. ✗
2. ✗
3. ✗
4. ✗
5. ✗



Answer the following questions:

1. The <HR> tag is used when you want to divide your web page into different sections.
2. text-indent property is used for indentation in HTML5.
3. The <SUP> tag is frequently used to write algebraic formulas.
4. The <HR> tag is used when you want to divide your web page into different sections. It is also used when you want to draw a line between two paragraphs. The <HR> tag has width, size, and color attributes to modify the horizontal ruler (line).

5. By using CSS, you can change the font face, colour, style and size. 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.
6. a. The <SUP> tag is used to turn the enclosed text into a superscript, whereas the <SUB> tag is used to turn the enclosed text into a subscript.
b. text-align specifies the alignment of the text, whereas text-indent specifies the indentation of the first line of the text.



Scratch Your Brain.

1. Do it yourself
2. Do it yourself
3. Competency-based/Application-based questions:
 - a. He can use margin properties.
 - b. She can use Background properties and Font properties.

8. Lists and Tables in HTML5



Take Off (Page no. 99)

<BODY>

The chemical formula of Sulfuric Acid is H₂SO₄.

The formula of Pythagoras theorem is $a^2 + b^2 = c^2$.

Where a, b and c are three sides of a right triangle.

</BODY>



Double Tap (Page no. 103)

<HTML>

<HEAD> <TITLE> Nesting of Lists </TITLE> </HEAD>

<BODY>

<OL TYPE = "I">

 Office

<UL TYPE = "Disc">

 Word



```

<LI> Excel </LI>
<LI> PowerPoint </LI>
</UL>
<LI> Adobe Software </LI>
<UL TYPE = "Disc">
<LI> Animate CC </LI>
<LI> Photoshop CC </LI>
</UL>
</OL>
</BODY>
</HTML>

```



Double Tap

(Page no. 110)

- | | |
|--------------------------|----------------------------|
| 1. Border Property | 2. Border-style Property |
| 3. Border-color Property | 4. Border-spacing Property |



Choose the correct option.

- | | | | | |
|-------|-------|-------|-------|-------|
| 1. c. | 2. a. | 3. c. | 4. b. | 5. d. |
|-------|-------|-------|-------|-------|



Fill in the blanks with the correct words.

- | | | | | |
|-----------------|--------------|---------|---------|--------------|
| 1. ordered list | 2. list item | 3. | 4. disc | 5. <CAPTION> |
|-----------------|--------------|---------|---------|--------------|



Tick (✓) the correct statements and cross (✗) the wrong ones.

- | | | | | |
|------|------|------|------|------|
| 1. ✓ | 2. ✗ | 3. ✗ | 4. ✗ | 5. ✗ |
|------|------|------|------|------|



Answer the following questions:

1. A list is a collection of related items that can be used to represent information in pointed form.
2. Tables represent the data in the form of rows and columns. In HTML5, a table is created by using the <TABLE> tag.
3. The definition list is also known as description list. The description list is created by using the <DL> tag in conjunction with <DD> and <dt> tags.
4. An ordered list is also called the numbered list. This type of list is used to display the items in a sequential manner, whereas an unordered list is also called bulleted list. This type of list is generally used to display random items which never require to place in a sequential manner. The tag is used to define an unordered list.

5. <TR>: This tag is used for defining table rows.
 <TD>: This tag is used for defining table data, that is, the data of the cells.
 <CAPTION>: This tag is used for defining the title of the table.
 <TH>: This tag is used for defining table headings.
6. The Rowspan attribute applies when a single cell is extended for more than a single row, that is, the cell spans for 2 or more rows instead of 1, whereas the Colspan attribute applies when a single cell is extended to more than a single column, that is, the cell spans for 2 or more columns instead of 1.



Scratch Your Brain.

1.

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

2. **Competency-based/Application-based questions:**
 - a. He can Create table using <TABLE> tag.
 - b. She can use <TR> tag.

Periodic Assessment–3

(Based on chapters 6 to 8)

A. Spot the errors in the following HTML code and rewrite the correct code:

```
<html>
<body bg colour = "red">
<h1> Venus </h1>
<hr>
<p> Venus is the second planet from
the Sun. It is named after the Roman
```



goddess of love and beauty. As the second-brightest natural object in the night sky after the Moon, Venus can cast shadows and can be, on rare occasion, visible to the naked eye in broad daylight. Venus does not have any moons, a distinction it shares only with Mercury among planets in the Solar System.

</p>

</hr>

</body>

</html>

B. Give an example of the following:

1. Google Assistant
2. (This question was printed incorrectly in the book please correct it in your textbook.)

Question: Native Apps

Ans. Camera

3. (This question was printed incorrectly in the book please correct it in your textbook.)

Question: Entertainment Apps

Ans. YouTube

4. Facebook
5. Flipkart

C. Write the uses of the following:

1. The Rowspan attribute applies when a single cell is extended for more than a single row, that is, the cell spans for 2 or more rows instead of 1.
2. The font-family specifies the font to be used.
3. The background-image specifies the image to be used in the background on the web page.
4. Google Drive is a cloud-based storage service. The synchronisation feature allows you to download and upload files into the remote server.
5. The border-spacing property is used to specify the space between the borders of adjacent cells.

9. Algorithmic Intelligence



Take Off

(Page no. 121)

1. AA2	BB4	CC3	DD8
2. AB	DF	GH	JK
3. 1234	6789	2354	4567
4. 0001	1002	0101	0111



Double Tap

(Page no. 124)

DO it yourself.



Choose the correct option.

1. b. 2. a. 3. b



Tick (✓) the correct statements and cross (✗) the wrong ones.

1. ✓ 2. ✓ 3. ✓ 4. ✗ 5. ✓



Answer the following questions:

1. Information processing involves acquiring, storing, analyzing, retrieving and displaying of information.
2. An algorithm is a step-by-step instructions in a sequential manner to solve a problem.
3. Computers store and processes data and information using binary code in the form of digital 1s and 0s inside the (CPU) and RAM.
4. The program executes the statements written after 'if' when the condition is true. If it is false, the statements written after 'else' will be executed.

5. **Read Day**

If day = Sunday

Display Picnic

Else

Display School





Scratch Your Brain.

1.

If (number is 1) then colour Blue
 If (number is 2) then colour Green
 If (number is 3) then colour Yellow
 If (number is 4) then colour Purple
 If (number is 0) then do not colour

4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
4																			4
4			2	2	3	3	1	1											4
4			2	2	3	3	1	1											4
4							2	2	1	1	3	3							4
4							2	2	1	1	3	3							4
4											2	2	1	1					4
4											2	2	1	1	3	3			4
4															3	3			4
4																			4
4																			4

2. **If**

Number is divisible by 3

Then

Print "The number is ODD"

Else

Print "The number is EVEN"

3. **Competency-based/Application-based questions:**

a. **If**

world which electricity

Then

Life will be impossible

b. **It**

my friend has changed into a cartoon character

Then

I will be glad to see him & will play with him.

10. Conditional Statements in Python



Take Off (Page no. 128)

1. True

2. 84

3. 8 2 20

4. True

5. 22



```
age = 17
if(age > 18):
    print('You are eligible to vote')
else:
    print('Not eligible to vote')
```



Choose the correct option.

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



Fill in the blanks with the correct words.

1. if 2. true 3. false 4. else



Tick (✓) the correct statements and cross (✗) the wrong ones.

1. ✗ 2. ✗ 3. ✗ 4. ✓ 5. ✓



Answer the following questions:

- Decision making in Python is done by called conditional statements which decide the flow of program execution.
- if (Test Expressions_1):
 Indented block 1
elif (Test Expression_2):
 Indented block 2
elif (Test Expression_3):
 Indented block 3
else:
 Indented block
- if (Test Expression):
 Indented statement block
 # if block ends here
- um = float(input("Enter the distance measured in centimeter : "))
 """ 1 inch = 2.54 centimeters """
 inc = num/2.54
 print("Distance in inch : ", inc)





Scratch Your Brain.

1.
 - a. b is not greater than a
 - b. Enter the value of a: 25
Enter the value of b: 30
b is greater than a
 - c. Positive number
 - d. Above ten
and also above 20!
2.
 - a.

```
num = int(input("Enter a Number: "))  
if num > 5:  
    print("Number greater than five")  
elif num < 5:  
    print("Number less than five")  
else:  
    print("")
```
 - b.

```
Marks = int(input("Enter the Marks: "))  
if Marks < 33:  
    print("Fail")  
else:  
    print("Pass")
```
3. **Competency-based/Application-based questions:**
 - a. Design makes statement.
 - b. If ...elif ...else

11. Concept of Smart Living



Take Off

(Page no. 141)

Do it yourself.



Double Tap

(Page no. 141)

1. T

2. F



Choose the correct option.

1. b. 2. b. 3. b. 4. b.



Tick (✓) the correct statements and cross (✗) the wrong ones.

1. ✓ 2. ✓ 3. ✗ 4. ✓ 5. ✓



Answer the following questions:

- Smart Smoke Detectors device sounds an alarm when smoke is detected. It can warn you if there is fire in your home.
- Smart TV allows its users play music, movies, or change channels using Internet. And all this can be controlled with your voice.
- Smart Homes are homes that use internet connected devices to empower remote monitoring and management of appliances and devices such as for lighting and heating.
 - Smart Homes are great at saving power.
 - They are installed with smart security devices which helps in protecting the home and its belongings.
 - They are connected to multiple devices and all of those devices can be accessed easily all at once with the help of a smartphone.
 - They are installed with gadgets that can be accessed remotely and can control various functions. For example, a person can control the temperature of the Smart Home.
- Smart Lighting
 - Smart Cameras
 - Video Doorbells



Scratch Your Brain.

- VIDEO DOORBELL
 - SMART SPEAKER
 - SMART TV
- Do it yourself
- Competency-based/Application-based questions:**
 - Smart Smoke Detectors
 - Smart Lighting



Periodic Assessment-4

(Based on chapters 9 to 11)

A. Write the output of the following Python program:

Congratulations!!!

You have passed the exam

B. Write the syntax for if...elif...else statement.

```
if (Test Expressions_1):
```

```
    Indented block 1
```

```
elif (Test Expression_2):
```

```
    Indented block 2
```

```
elif (Test Expression_3):
```

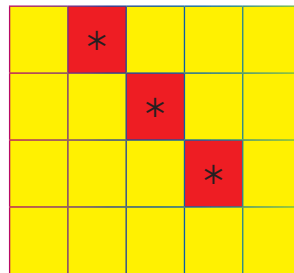
```
    Indented block 3
```

```
else:
```

```
    Indented block
```

C. Cross out the boxes as per the program.

If (box has *)
then
colour it red
else
colour it yellow



D. Write the names of the following smart devices:

1. Smart Cameras

2. Smart Smoke Detectors

3. Smart Speakers

Test Sheet-2

(Based on chapters 5 to 11)

A. Choose the correct option.

1. d.

2. c.

3. a.

4. a.

5. d.

6. a.

7. d.

8. b.

9. a.

10. b.

11. b.

12. b.

B. Tick (✓) the correct statements and cross (×) the wrong ones.

1. ×

2. ×

3. ×

4. ✓

5. ×

6. ✓

7. ×

8. ✓

C. Answer the following questions:

1. Web apps are different from websites. The major difference is that a web app can be a small part of a website which provides a particular functionality. On the other hand, a website can contain many web apps.

2. a. Gaming Apps: These apps allow us to improve our cognitive skills such as attention and focus. Some of the gaming apps allow children to learn while playing. These apps also allow us to play games with other friends and share scores on social media. The most commonly used gaming apps are Call of Duty, Candy Crush Saga, and Angry Birds.
- b. Productivity Apps: These apps are also known as business apps used by businessmen to perform several complex tasks. These apps allow businessmen do their work more effectively. The most commonly used productive apps are Google Calendar, Evernote and Dropbox.
- c. E-Commerce Apps: E-commerce means to buy or sell products on an online service over the Internet. E-commerce apps allow us to buy or sell products while sitting at home or any other place. The most commonly used apps are Amazon, Flipkart and Blinkit.
3. The <SUP> tag is frequently used to write algebraic formulas.
4. The <HR> tag is used when you want to divide your web page into different sections. It is also used when you want to draw a line between two paragraphs. The <HR> tag has width, size, and color attributes to modify the horizontal ruler (line).
5. Information processing involves acquiring, storing, analyzing, retrieving and displaying of information.
6. Smart Homes are homes that use internet connected devices to empower remote monitoring and management of appliances and devices such as for lighting and heating.
 - a. Smart Homes are great at saving power. For example, people often forget to switch off their lights when they go to sleep. Smart Homes can detect when the user is asleep and accordingly switch off the lights.
 - b. They are installed with smart security devices which helps in protecting the home and its belongings.
 - c. They are connected to multiple devices and all of those devices can be accessed easily all at once with the help of a smartphone.
 - d. They are installed with gadgets that can be accessed remotely and can control various functions.

For example, a person can control the temperature of the Smart Home.
7. <TR>: This tag is used for defining table rows.
 <TD>: This tag is used for defining table data, that is, the data of the cells.
 <CAPTION>: This tag is used for defining the title of the table.
 <TH>: This tag is used for defining table headings.
8. The Rowspan attribute applies when a single cell is extended for more than a single row, that is, the cell spans for 2 or more rows instead of 1, whereas the Colspan attribute applies when a single cell is extended to more than a single column, that is, the cell spans for 2 or more columns instead of 1.
9. An algorithm is a step-by-step instructions in a sequential manner to solve a problem.
10. The syntax of if...elif...else ladder is shown below:

```

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