

Name: _____

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NUMBER SYSTEM

A. Match the following:

- | | |
|------------------------------|------------|
| 1. Binary number system | a. base 16 |
| 2. Octal number system | b. base 2 |
| 3. Decimal number system | c. base 8 |
| 4. Hexadecimal number system | d. base 10 |

B. Circle the correct option.

- The digital computer represents all kinds of data and information in (binary / octal) numbers.
- The (binary / decimal) number system consists of ten digits from 0 to 9.
- (Decimal / Octal) number system is used as a shorthand representation of long binary numbers.
- The (hexadecimal / octal) number system consists of 16 digits from 0 to 9 and A to F.
- The positional value of each digit in binary number is (twice / thrice) the place value or face value.

C. Write the full forms of the following:

- MSD –
- LSD –

D. Extract the binary number from the following example and write below:

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

Binary number:

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NUMBER SYSTEM

A. Explain the following:

1. Number system-
2. Radix-
3. Binary addition-

B. Tick (✓) the correct option.

1. What is the result of $1 + 1$ in binary addition?

a. 0	<input type="checkbox"/>	b. 10	<input type="checkbox"/>
c. 1	<input type="checkbox"/>	d. 11	<input type="checkbox"/>
2. Which of the following is a valid octal number?

a. 183	<input type="checkbox"/>	b. 965	<input type="checkbox"/>
c. 983	<input type="checkbox"/>	d. 345	<input type="checkbox"/>
3. How many bits does one Nibble equal to?

a. 4 bits	<input type="checkbox"/>	b. 8 bits	<input type="checkbox"/>
c. 16 bits	<input type="checkbox"/>	d. 1 bit	<input type="checkbox"/>
4. In which number system does a digital computer represent data?

a. binary	<input type="checkbox"/>	b. hexadecimal	<input type="checkbox"/>
c. decimal	<input type="checkbox"/>	d. octal	<input type="checkbox"/>

C. Convert the decimal number 44 into binary number.

.....

.....

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FORMULAS, FUNCTIONS AND CHARTS IN CALC.

A. Read the clues and answer the following:

1. It returns the largest value in the given range.
2. This type of chart displays data in the form of vertical bars, used to compare different categories.
3. It is a built-in function that returns the current date.
4. It calculates the maximum, minimum, average, etc. of a set of numeric data.

B. Circle the correct option.

1. Absolute cell references in Calc use the (dollar (\$) / equal (=) symbol).
2. Built-in formulas in Calc are called (functions/methods).
3. The (Hash/period) separates the worksheet portion of the reference from the cell portion.
4. When a cell is selected, the (Status Bar/Formula Bar) shows the formula you just typed.
5. (Statistical / Mathematical) calculates the square root or absolute value of a number, product of numbers, etc.

C. Write the purpose of the following functions in Calc:

1. LEN() –
2. COUNT() –
3. UPPER() –
4. SQRT() –

D. Identify the following tools of Calc:



1.

2.

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Chapter-2

CLASS 7

FORMULAS, FUNCTIONS AND CHARTS IN CALC.

A. Define the following:

- SUM(Range) -
- Operators -
- Chart -
- Len(text) -

B. Tick (✓) the correct option.

1. Which one of the cell references can be included in relative reference?

a. A3

☐

b. A\$1

☐

c. \$A\$4

☐

d. \$D6

☐

2. What do you call numbers or text values that do not change?

a. Function

☐

b. Constant

☐

c. Reference

☐

d. Formula

☐

3. What will be the result of =UPPER("formula")?

a. Formula

☐

b. FORMULA

☐

c. formula

☐

d. ForMula

☐

C. Write the formula to:

1. Concatenate the text strings "Touch" and "Pad".

.....

2. Find the maximum value from the 3, 5, 9, 10, and 13 values.

.....

3. Find the current day from the date 7/23/2019.

.....

4. Extract three characters from the right side of the text string "Concatenate".

.....

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MORE ON CALC

A. Write 'T' for true and 'F' for false.

1. Calc can arrange the selected data in only ascending order.
2. AutoFilter option is present under File menu.
3. Open option is used to print a spreadsheet.
4. The filters once applied can be easily removed.
5. The Goal Seek feature is used to sort data in Calc.

B. Complete the steps to print a worksheet.

Step 1 Select the of data that you want to print.

Step 2 Click on the menu.




Step 3 Click on the option.

Step 4 Click on the button.

C. Write the use of the following in Calc.

1. Data Bars –
2. Icon Sets –
3. Multiple Sort –
4. Colour Scale –

D. Identify the following icons of Calc.

1. 
2. 
3. 

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Chapter-3

CLASS 7

MORE ON CALC

A. Tick (✓) the correct option.

1. Which of the following is used to apply multiple sorting criteria in Calc?

a. AutoFilter

☐

b. Standard Filter

☐

c. Sort dialog box

☐

d. Goal Seek

☐

2. Which feature in Calc allows you to apply a color gradient across cells?

a. Data Bars

☐

b. Conditional Formatting

☐

c. Icon Sets

☐

d. Colour Scale

☐

3. Which of the following is used to remove filters in Calc?

a. AutoFilter

☐

b. Reset Filter

☐

c. Sort

☐

d. Goal Seek

☐

B. Answer the following questions:

1. What is Conditional Formatting?

.....

2. What is the purpose of printing a worksheet in Calc?

.....

3. Which option works similarly to the Standard Filter in Calc?

.....

C. Guess the correct option for the functions given below.

1. The technique of highlighting some cells in a worksheet which satisfy a given condition.

.....

2. Feature used to separate unwanted data from Calc worksheet.

.....

3. The option to sort more than one column.

.....

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USING TOOLS IN TUPI 2D

A. Match the following:

1.



a. Shapes tool

2.



b. PolyLine tool

3.



c. Paint Bucket tool

4.



d. Pencil tool

5.



e. Ink tool

6.



f. Nodes Selection tool

7.



g. Object Selection tool

B. Complete the steps to draw a closed rectangle, by using Brushes tool.

Step 1 Click on tool and choose a type of brush:

Step 2 Click on button.

Step 3 Click on the to change the of the rectangle.

Step 4 Click on option to change the that is to be filled inside the rectangle.

Step 5 Click on the to change the width, line style etc. of line.

Step 6 Click on the option to choose the line patterns.

Step 7 Move to the and drag to draw the

Name: _____

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USING TOOLS IN TUPI 2D

A. Tick (✓) the correct option.

1. Which tool is used to draw ellipse?

a. Pencil

☐

b. Ink

☐

c. Polyline

☐

d. Brushes

☐

2. Which of the following tools can write text or draw any object?

a. Pencil

☐

b. Ink

☐

c. Fill

☐

d. Brushes

☐

3. Which of these is a collection of different colors?

a. Color Palette

☐

b. Left side bar

☐

c. Exposure Sheet

☐

d. Toolbox

☐

4. Where is the library located in the Tupi 2D interface?

a. right side

☐

b. bottom side

☐

c. Top center side

☐

d. left side

☐

B. Write 'T' for true and 'F' for false.

1. Cap option allows us to choose the start and end line.

2. Pencil tool helps us to draw those shapes which we can not draw with shape tools.

3. Brush tool is used to draw a closed rectangle.

4. Ink tool is a free hand drawing tool.

C. Answer the following questions:

1. What is the use of Node Selection tool?

.....

2. Which tool helps the user to modify, flip or group objects as per their requirements?

.....

3. What is the Toolbox?

.....

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ANIMATIONS IN TUPİ 2D

A. Fill in the blanks using the hints given below:

Hints: Scale, Exposure, frame, layer, Motion, Opacity

1. _____ are used to work on the individual part of the image without affecting the other parts.
2. _____ tween helps to move an object.
3. _____ tween controls the opacity level of the object from starting to ending at two different points.
4. _____ tween helps to give zooming effect to an object.
5. A _____ is a single animation that is applied on an object or picture on a timeline.
6. _____ Sheet located in the right sidebar of the Tupi 2D interface.

B. Circle the incorrect words.

1. If an object is part of a tween, then that object (cannot / can be) edited as a vector path.
2. Tupi 2D help us to create an animation/transition.
3. Layers are like stack of (blank / transparent) sheets.
4. A frame holds the content of the project at a particular (moment / second).
5. Rotation tween automatically (moves / rotates) the object as per the specification given.

C. Answer the following questions:

1. What is the significance of frame?

.....

2. What is the shortcut key to start Coloring Tween?

.....

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TOUCHPAD

PLUS Ver. 3.2 >

Chapter-5

CLASS 7

ANIMATIONS IN TUPHI 2D

A. Tick (✓) the correct option.

1. What feature does Tuphi 2D use to make the animation process easier and faster?

a. Layers

☐

b. Keyframes

☐

c. Tweening

☐

d. Exposure Sheets

☐

2. Which option is found in the Exposure Sheet for modifying the animation?

a. Add frame

☐

b. Insert layer

☐

c. Duplicate frame

☐

d. All of these

☐

3. Which tween helps to control the opacity of an object at two points?

a. Rotation

☐

c. Scale

☐

b. Opacity

☐

d. Rotation

☐

4. Which tween helps to give zooming effect to an object?

a. Coloring

☐

c. Scale

☐

b. Opacity

☐

d. Shear

☐

B. Write the steps to give zooming effect to an object.

Step 1

Step 2

Step 3

Step 4

Step 5

Step 6

Step 7

Step 8

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INTRODUCTION TO GIMP

A. Identify the given tools & write their uses.

1. 
2. 
3. 
4. 
5. 
6. 

B. Read the clues and answer the following:

1. It shows options for the currently selected tool.
2. It is used to set order of visibility of the objects.
3. This tab is used to fill the selected areas of an image.
4. It contains different menus such as File, Edit, Select, Image, etc. for doing various tasks.
5. This tab is used for all tools that allow you to paint on the image, like erasing and smudging.
6. This tool allows you to add, edit, and style text within an image.
7. This tool is used to create a blending effect between two or more colours in the workspace.

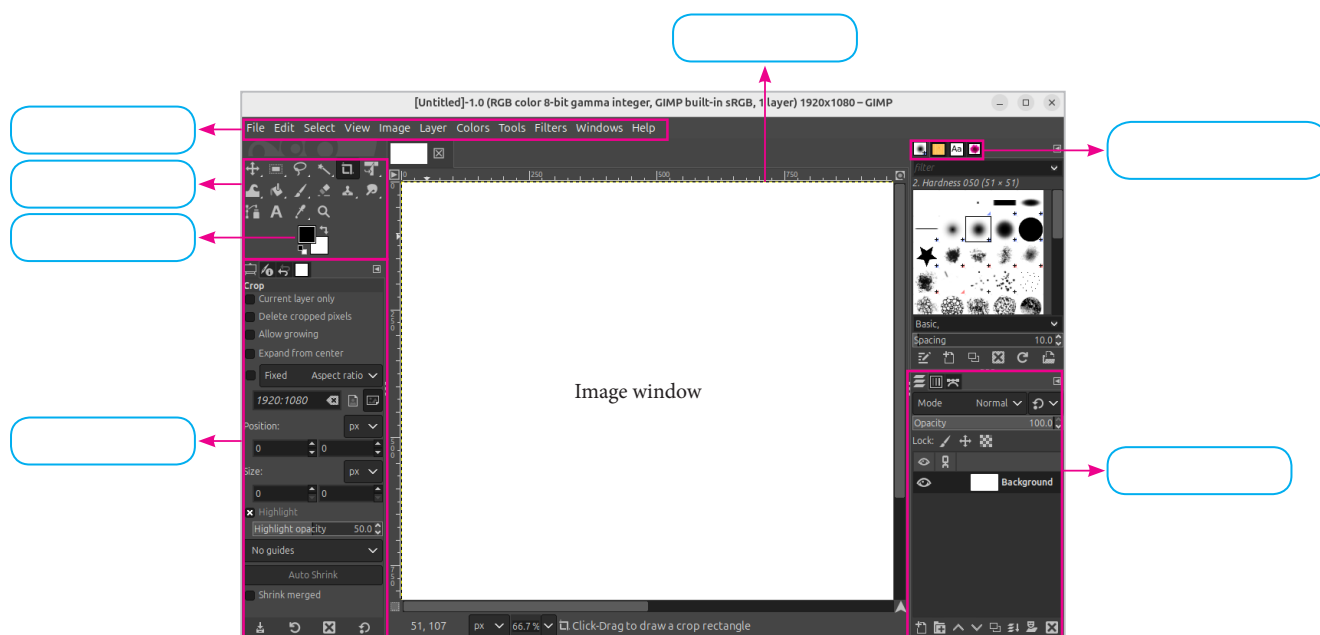
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INTRODUCTION TO GIMP

A. Label the components of GIMP Interface.



B. Write T for True and F for false.

- Conical is used when circles are to be shown in gradient effect.
- Zoom tool is used to magnify a desired part of an image.
- Linear is used when straight lines are to be shown in gradient effect.
- Ellipse Select tool is used to select an object by drawing a freehand border around it.
- Crop tool is used to remove unwanted portion from an image.
- GIMP is an open-source graphics editor software used for image retouching and editing.

C. Answer the following questions.

- Write any one feature of GIMP.
.....

- What is the use of Text tool?
.....

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MORE ON HTML5

A. Tick (✓) the correct option.

- Which of the following font properties is used to change the font size?

a. font-family	<input type="checkbox"/>	b. font-size	<input type="checkbox"/>
c. font-style	<input type="checkbox"/>	d. None of these	<input type="checkbox"/>
- Which of the following background properties is used to specifies the repetition of an image on the web page?

a. background-image	<input type="checkbox"/>	b. background-imagerepeat	<input type="checkbox"/>
c. background-repeatimage	<input type="checkbox"/>	d. background-repeat	<input type="checkbox"/>
- Which tags are used to add headings in a web page?

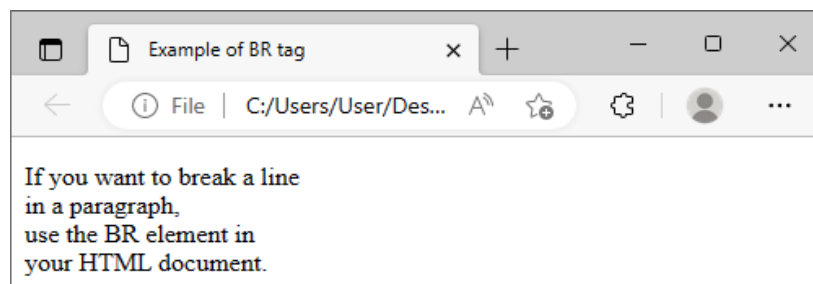
a. Heading	<input type="checkbox"/>	b. Style	<input type="checkbox"/>
c. Superscript	<input type="checkbox"/>	d. Subscript	<input type="checkbox"/>

B. Fill in the blanks using the hints given below:

Hints: margin, paragraph, HTML, superscript, subscript

- is a markup language.
- The property is used to set margins for any web page element.
- The <P> tag defines the start and end of a
- The <SUB> tag is used to turn the enclosed text into a
- The <SUP> tag is used to turn the enclosed text into a

C. Write the HTML program of the given output.



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MORE ON HTML5

A. Write 'T' for true and 'F' for false.

1. The <SUB> tag has no attributes to align text.
2. The margin tag has 5 levels.
3. The background colour of the web page cannot be changed.
4. HTML allows you to change the colour of the text.
5. The <HR> tag is used to draw lines between paragraphs.

B. Answer the following question:

1. What is the use of <TITLE> tag?
.....
.....
2. Which tag is used to break lines of text?
.....
.....
3. Which tag is used to write chemical formula?
.....
.....

C. Competency-based/Application-based question:

Aman was creating a HTML file for his class assignment and he had to change the font face, colour, style and size but he doesn't know from where he can do that in HTML and CSS. Tell him the property he can use to do so.

.....
.....

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LISTS AND TABLES IN HTML

A. Circle the correct option.

1. An unordered list is also called (bulleted / numbered) list.
2. The (/) tag is used to define an unordered lists.
3. A list is a collection of (related / different) items.
4. The default bullet style is (Disc / Square) in HTML.
5. The (<TR> / <TD>) tag is used for defining table rows in HTML.

B. Read the clues and answer the following.

1. It represent the data in the form of rows and columns.
2. It is a tag used for defining the title of a table.
3. It is an property allows you to apply a color to the border.
4. It is a tag used to define an item in the list.
5. It is a tag used for defining table headings.

C. Identify the type of lists and write their names.

- | | | |
|-----------|------------|---------------|
| 1. Apple | • Sweaters | 1. Beverages |
| 2. Mango | • Caps | • Cold Drinks |
| 3. Orange | • Gloves | 2. Cappuccino |
| 4. Banana | • Jackets | • Hot Drinks |

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LISTS AND TABLES IN HTML

A. Write the full form of the following.

1. <TR> -
2. <DT> -
3. <DL> -

B. Tick (✓) the correct option.

1. Which tag allows the user to insert a table in a web page?

a.

☐

b. <TABLE>

☐

c. <A>

☐

d.

☐

2. Which of the following is not a CSS property used with the <TABLE> tag?

a. Border

☐

b. Border-style

☐

c. Border-color

☐

d. Background-color

☐

3. Which CSS property is used to give color to the border of the table?

a. Border

☐

b. Border-color

☐

c. Border-style

☐

d. Border-width

☐

C. Write 'T' for true and 'F' for false.

1. The START attribute always accepts an integer value.
2. Description list is used to create a bulleted list.
3. The <DT> tag is used to create a table in HTML.
4. The <TR> tag is used to create cells in the table.
5. By default, HTML starts from A if the START attribute is not specified.

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ALGORITHMIC INTELLIGENCE

A. Tick (✓) the correct option.

- Which of the following uses special symbols to represent each step?

a. Data	<input type="checkbox"/>	b. Flowchart	<input type="checkbox"/>
c. Reasoning	<input type="checkbox"/>	d. Algorithm	<input type="checkbox"/>
- Which of the following is the basic form of the data?

a. Reasoning	<input type="checkbox"/>	b. Binary code	<input type="checkbox"/>
c. Conditions	<input type="checkbox"/>	d. Data	<input type="checkbox"/>
- Which of the following are used in a program to instruct the computer to make a decision?

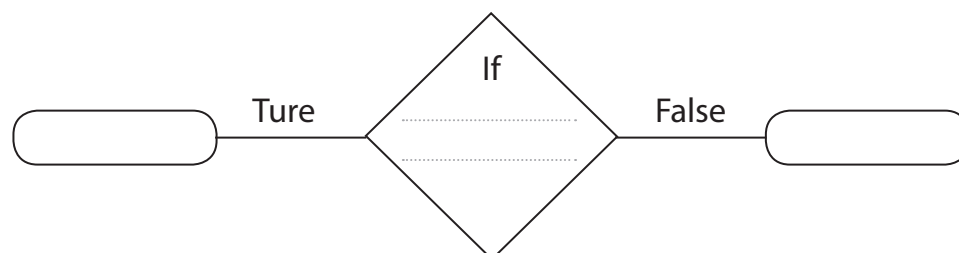
a. Conditional statements	<input type="checkbox"/>	b. Algorithm	<input type="checkbox"/>
c. Binary code	<input type="checkbox"/>	d. Flowchart	<input type="checkbox"/>

B. Fill in the blanks using the hints given below:

Hints: Basis, Information, Acquires, Process

- Computers store and data and information using binary code in the form of digital 1s and 0s.
- An algorithm and a flowchart are the to write a program.
- Effective processing is crucial for writing an algorithm.
- Our brain, processes, and stores information.

C. What would happen if ... we had to live in a world without water?



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ALGORITHMIC INTELLIGENCE

A. Find six words related to algorithmic intelligence.

	P											
P	R	O	G	R	A	M		F				
	O							L				
	C	O	N	D	I	T	I	O	N	S		
	E							W				
	S							C				
	S		D					H				
B	I	N	A	R	y			A				
	N		T					R				
	G		A					T				

B. Answer the following questions:

1. What are conditions in a program?

.....

.....

2. Write an 'if' condition to display "Happy Birthday" if it is 2nd March today otherwise display "Thursday".

.....

.....

3. Write the if-then-else condition to check if a number is divisible by 5 or not.

.....

.....

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CONDITIONAL STATEMENTS IN PYTHON

A. Tick (✓) the correct option.

1. Which conditional statement is best to check if a user is underage or not?

a. print statement

☐

b. if...else statement

☐

c. elif statement

☐

d. check statement

☐

2. Which of the following conditionals can test multiple conditions?

a. if Statement

☐

b. if...else Statement

☐

c. if...elif...else Statement

☐

d. None of these

☐

3. What is the answer of the expression, $3^{**}3^{**}3$?

a. 3

☐

b. 27

☐

c. 9

☐

d. 18

☐

B. Fill in the blanks using the hints given below:

Hints: True, conditional, non-zero, nested

1. The if statement is the simplest statement.

2. In Python, the value is interpreted as True.

3. Python allows the if statement.

4. The decision block will be executed if and only if the provided condition evaluates to

C. Find the error in the following code and rewrite the code:

1. `number = int(input("Enter a number: "))`

`if (number % 4 = 0):`

`print(number, "is divisible by 4.")`

2. `x = 10`

`if (x > 5)`

`print("x is greater than 5")`

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CONDITIONAL STATEMENTS IN PYTHON

Chapter-10

CLASS 7

A. Write the output of the following programs:

1. `a = 200`

`b = 33`

`if b > a:`

`print("b is greater than a")`

`else:`

`print("b is not greater than a")`

.....

3. `age = int (input("Enter your age?"))`

`if age>=18:`

`print("You are eligible to vote !!");`

`else:`

`print("Sorry! you have to wait !!");`

.....

2. `num = 3.4`

`if num > 0:`

`print("Positive number")`

`elif num == 0:`

`print("Zero")`

`else:`

`print("Negative number")`

.....

4. `num = int(input("enter the number?"))`

`if num%2 == 0:`

`print("Number is even.")`

`else:`

`print("Number is odd.")`

.....

B. Write syntax of the following:

1. if statement

.....
.....

2. if...else statement

.....
.....
.....
.....

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AI FOR SDGs

A. Tick (✓) the correct option.

1. By which year does the SDG 2 aims to end hunger?

a. 2025

☐

b. 2030

☐

c. 2035

☐

d. 3030

☐

2. What can we achieve by using AI in education?

a. Quality education

☐

b. Quality books

☐

c. Quality food

☐

d. Quality time

☐

3. In which year did the idea of SDG from the Rio+20 Summit came?

a. 2010

☐

b. 2011

☐

c. 2012

☐

d. 2014

☐

B. Identify the following SDGs and write their names.

1.



2.



3.



4.



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AI FOR SDGs

A. Write 'T' for true and 'F' for false.

- SDG 8 aims to lessen the youth unemployment.
- The aim of SDG 1 is to provide clean water by reducing pollution, eliminating dumping and minimising release of harmful chemicals by 2030.
- SDG 2 aims to end hunger issues and ensure access to nutritious food for all children.
- Our oceans are vast and cover more than 70% of the earth's surface.

B. Fill in the blanks using the hints given below:

Hints: United Nations , Rio+20, 4, AI

- The idea of SDG came from the summit in the year 2012.
- AI can be a vital tool for the global community to achieve the targets of the Sustainable Development Goals.
- AI for climate action has the potential to reduce global greenhouse gas emissions by up to percent.
- may help in improving industrial growth thereby improving the global financial market and institutions.

C. Assertion and Reasoning based questions.

Assertion (A): AI powered apps can be used by employers to use gender sensitive language for their recruitment-drive. AI can analyse huge amount of data to find the area where more gender specific issues exist.

Reason (R): For sustainable development, it's necessary that we end all forms of discrimination against women. This is a basic human right. We need to provide equal access to resources, opportunities, power and property to women in the world.

- Both A and R are correct and R is the correct explanation of A.
- Both A and R are correct but R is NOT the correct explanation of A.
- A is correct but R is not correct.
- A is not correct but R is correct.