Worksheet

1

COMPUTER NETWORKING

Chapter-1

Class -8

A. Tick (✓) the correct option.

1. Which networking device can convert the digital data into analog signal and vice versa?

   a. Hub   b. Modem

   c. Router   d. LAN Card

2. Which of these is not a protocol?

   a. HTTP   b. HTTPS

   c. FTP   d. HTML

3. Which of these is the Internet standard protocol that allows clients to retrieve e-mail messages from an e-mail server?

   a. HTTP   b. FTP

   c. POP3   d. None of these

B. Circle the correct option.

1. The process of (connecting / separating) computers and peripheral devices with each other, so that they can exchange data is called computer networking.

2. A (server / client) is also called as host computer.

3. (LAN / WAN) is a digital communication system that interconnects a larger number of computers and other peripheral devices within a radius of less than 1 km.

C. Name the type of topology used in below images:

....

Worksheet

2
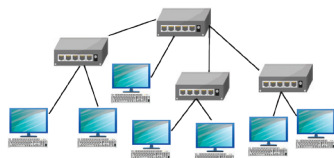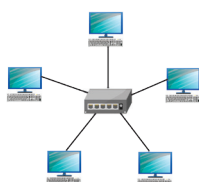
COMPUTER NETWORKING

Chapter-1

A. Define the following:

1. Modem - ....

2. Hub - ....

3. Computer Network - ....

B. Answer the following questions:

1. What is the difference between Hypertext and Hyperlink?

....

....

2. Explain any two types of networks.

....

....

3. Write the difference between Wi-Fi and Bluetooth.

....

....

4. Explain two types of Network Architectures.

....

....

C. Write the full form of the following:

1. HTTP - ....

2. MAN - ....

3. NIC - ....

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Worksheet

1

Name: ....

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KRITA- IMAGE EDITING

Chapter-2

A. Tick (✓) the correct option.

1. Which drop-down list is used to select the face of the font?
   a. Font Size ☐
   b. Font Family ☐
   c. Letter Spacing ☐
   d. Font Anchoring ☐

2. Which of the following is the place where you create and edit an image?
   a. Toolbox ☐
   b. Workspace ☐
   c. Menu Bar ☐
   d. Toolbar ☐

3. Which of the following displays the zoom level of the workspace?
   a. Resolution ☐
   b. Status bar ☐
   c. Toolbar ☐
   d. Menu Bar ☐

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

Hints: Open-source, Pixels, Deleted, Unnamed

1. Resolution is used to specify the number of .... per inch.

2. Krita is a free and .... graphics editor.

3. By default, the name given to the file is ....

4. The layers can be added or .... while working on the file.

C. Match the following:

1. ⬚   a. Similar Color Selection Tool

2. ⬚   b. Contiguous Selection Tool

3. ✳   c. Freehand Selection Tool
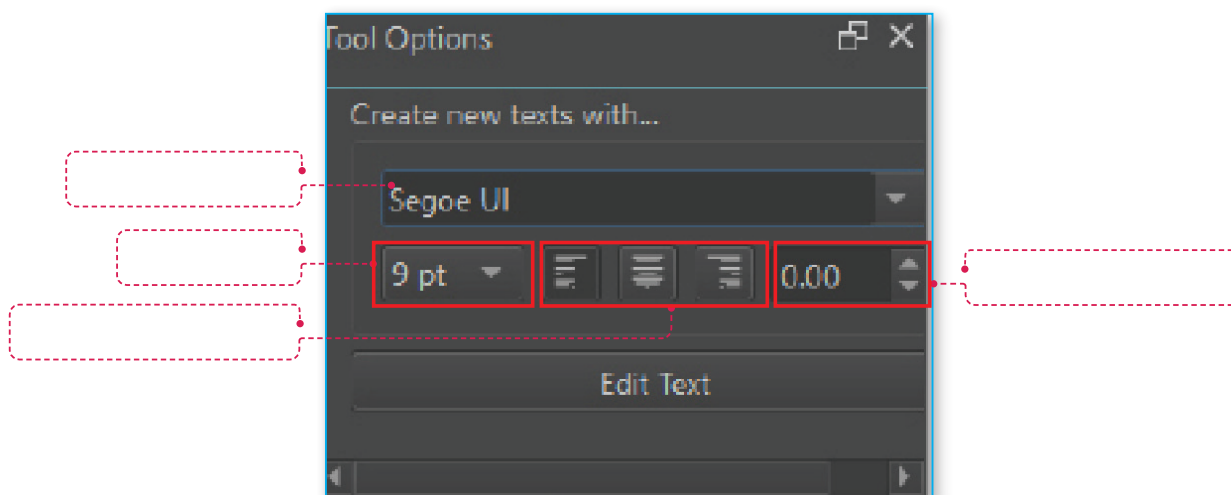
4. ⬚   d. Rectangular Selection Tool

Class -8

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KRITA- IMAGE EDITING

A. Label the Tool Options Docker for SVG Text Tool

B. Answer the following questions:

1. Write the steps to use the SVG text tool.

   ....

   ....

2. Explain the common options under Content tab.

   ....

   ....

C. Competency-based/Application-based question:

Sonalika has opened a file in Krita. She wants to detect the edges of the image automatically. Suggest the tool which will do the job.

....

....

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Worksheet

1

Name: ....

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TRENDING TECHNOLOGIES

A. Tick (✓) the correct option.

1. Which of the following technology that creates a complete virtual world that users can interact with?

   a. Augmented Reality ☐   b. Virtual Reality ☐

   c. 3D Printing ☐   d. Robotics ☐

2. Which of the following robot provides emergency services in rescue operations?

   a. Aibo ☐   b. ASIMO ☐

   c. Ameca ☐   d. Atlas ☐

3. Which of the following uses techniques such as machine learning and artificial intelligence to extract meaningful information?

   a. Data Science ☐   b. Augmented Reality ☐

   c. Internet of Things ☐   d. Robotics ☐

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

1. AI is used as image recognition for face unlock in smartphones. ....

2. Pepper is a robotic dog. ....

3. Nao is a small humanoid robot, packed with sensors. ....

4. Edge computing keeps computer data close to the user. ....

C. Match the following:

1.   a. Google Maps

2.   b. Snapchat

3.   c. Google Earth VR

4.   d. Matterport

Class -8

Grade: ★ ★ ★ ★ ☆

Teacher's Signature: ....

Worksheet

2

Name: ....

Roll No: .... Class: .... Section: ....

Date: ....

TRENDING TECHNOLOGIES

Chapter-3

A. **Write the features of the following popular Robots:**
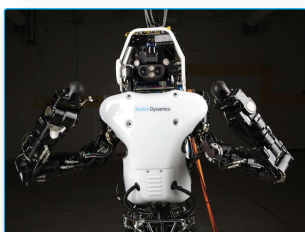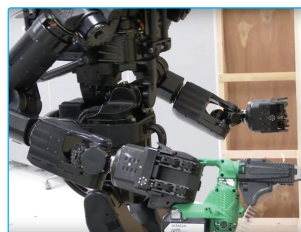
B. **Answer the following questions:**

1. What is Machine learning?

....

....

2. Explain Edge computing.

....

....

3. Write the examples of AR & VR applications.

....

....

C. **Competency-based/Application-based question:**

Samar's friend was watching a 3D movie, a technology creating an imaginary world for the purpose of entertainment. Samar doesn't know that which technology is this. Tell him the name of the technology.

....

....

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Class -8

Name: ....

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Date: ....

IMAGES, LINKS AND FRAMES IN HTML5

A. Tick (✓) the correct option.

1. Which of the following opens the linked web page in current window or tab?

a. _blank ☐   b. _parent ☐

b. _top ☐   d. _self ☐

2. Which of the following used to set the style on a link when it is clicked?

a. a:active ☐   b. a:hover ☐

b. a:link ☐   d. a:visited ☐

3. Which of the following tag allows you to divide a browser window into many sections or parts?

a. <VIDEO> ☐   b. <IFRAME> ☐

b. <AUDIO> ☐   d. <A> ☐

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

Hints: Unvisited, SRC, CSS, Linked

1. The hyperlink and the .... section appear on the same web page.

2. a:link is used to set the style for an .... link.

3. .... properties allow us to display links as buttons.

4. To add media, we are required to set .... attribute to identify the media source

C. Write the HTML code to create a Web page that has different sections or parts using <IFRAME> tag.

....

....

....

....

Grade: ★ ★ ★ ★ ☆

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Worksheet

2

Name: ....

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Date: ....

IMAGES, LINKS AND FRAMES IN HTML5

Chapter4

A. **Find the error in the following HTML code and rewrite the correct code:**

1. `<IMG SRC="lily.jpg" BORDER="right">`

   ....

2. `<A HREF = "lily.jpg" TARGET="_blank"> Link Text </A>`

   ....

3. `<A HREF=#left> Section heading </A>`

   ....

B. **Answer the following questions:**

1. Write the CSS properties to can change the look and style of hyperlinks.

   ....

   ....

2. Explain the attributes provided by <IFRAME> tag.

   ....

   ....

C. **Competency-based/Application-based question:**

Sahil was creating a HTML project and he wants to display more than one web pages on a single screen of the web browser. Hence, he want to divide a browser window into many sections or parts. Which HTML feature allows this?

....

....

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Worksheet

1

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FORMS IN HTML5

Chapter-5

A. Tick (✓) the correct option.

1. Which of the following tag is used to create the form boundary on the web page?
   a. <SELECT>   b. <FORM>
   b. <INPUT>   d. <TEXTAREA>

2. Which tag is used to create a multiline text box that can accept log text values?
   a. <INPUT>   b. <TEXTAREA>
   b. <SELECT>   d. <FORM>

3. Which of the following attribute is used to specify the identity of the field on the web page?
   a. VALUE   b. NAME
   b. TYPE   d. TEXT

B. Write the code to create:

1. Checkbox Control

   ....

2. Radio Button Control

   ....

3. Submit Button Control

   ....

D. Complete the Following program to create a web page to display the text box button:

```
<!DOCTYPE html>
<HTML>
<BODY>
<_____>
USER NAME :
<INPUT  TYPE=_____  NAME=_____  SIZE="30"
    VALUE=_____>
<_____>
</BODY>
</HTML>
```

Class -8

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FORMS IN HTML5

A.   Write the HTML code to create the following form:

Full name *

First   Last

Email *

Leave us a few words *

Submit

B.   Answer the following questions:

1.   Explain the attributes of <FORM> tag.

   ....

2.   What is <INPUT> tag?

   ....

3.   What is Combo Box?

   ....

Worksheet 1

Name: ....

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ALGORITHMIC INTELLIGENCE

A. Write the result for the following conditions if num1 is 500 and num2 is 400:

If (num1 > 250) **OR**
(num2 > 250)
Then
   Write "BURGER"
Else
   Write "PIZZA"

If (num1 > 250) **AND**
(num2 > 250)
Then
Write "BURGER"
Else
Write "PIZZA"

If (num1 < 250)
Then
   Write "BURGER"
Else
   Write "PIZZA"

B. Write the output of the following programs:

1. Repeat 2 times
   {
   Enter num
   }
   If num1 < num2
   Then
   Print "num2 is greater"
   Else
   Print "num1 is greater"

Num1	5	7	20	42	33
Num2	10	12	24	37	53
Print					

2. Repeat 4
   {
   Read marks
   If marks is > 33
   Then
   Display Pass
   Else
   Print Fail
   }

Marks	40	32	31	50	33
Results					53

3. Repeat 5 times
   (
   write "8"
   Move 1 step left
)

Grade: ★ ★ ★ ★ ☆

Teacher's Signature: ....

Worksheet

2

Name: ....

Roll No: .... Class: .... Section: ....

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ALGORITHMIC INTELLIGENCE

Chapter-6

A. Complete the given conditional statement structure.

```
          ____        If (Condition)      ____
                      to be _____
              Then                          Else
      _____ to                          Statements to
       be executed                             be executed
```
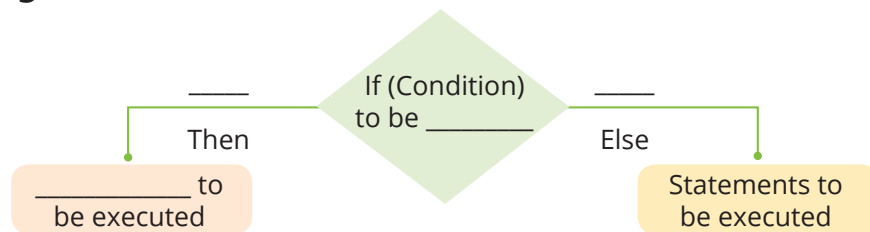
B. Answer the following questions:

1. Write an if condition to display "Yes" or "No" if it is a weekend today or your office.

    ....

    ....

2. Write a program to check whether a given number is odd or even. If the number is even, then print "Even number". If the number is odd, then print "Odd number".

    ....

    ....

C. Competency-based/Application-based question:

Your sister Vaishali wants to display "Yes" or "No" if the numbers from 1 to 50 is divisible by 5, also include first and the last number in calculation.

    ....

    ....

Class -8

Grade: ★ ★ ★ ★ ☆

Teacher's Signature: ....

Worksheet

1

LOOPS IN PYTHON

A. Tick (✓) the correct option.

1. Which of the following is a conditional statement in Python?

   a. for statement ☐   b. while statement ☐

   c. if statement ☐   d. break statement ☐

2. Which of the following statements are used when the number of repetitions are known?

   a. for statement ☐   b. while statement ☐

   c. if…else statement ☐   d. continue statement ☐

3. Which of the following statements skips the current iteration of a loop?

   a. if ☐   b. for ☐

   c. break ☐   d. continue ☐

B. Write the output of the following programs:

1.
```
i = 0
while i < 3:
print (i)
i += 1
else:
print (0)
```

....

2.
```
fruits = ["apple", "banana","cherry"]
for x in fruits:
print(x)
```

....

3.
```
i = 2
while i < 10:
print(i)
if i == 8:
break
i += 2
```

....

4.
```
number = ["fifty", "hundred", "thousand"]
for x in number:
 print(x)
 if x == "hundred":
  break
```

....

Grade: ⭐ ⭐ ⭐ ⭐ ☆

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Worksheet
2

LOOPS IN PYTHON

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

Hints: infinite, break, while, continue, non-zero, zero

1. The .... statement executes a set of statements repeatedly, until the logical expression remains true.

2. Any .... value in the while loop indicates an always true condition whereas zero indicates .... condition.

3. The .... loop never ends.

4. The .... and .... are the jump statements in Python.

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

1. We cannot use do-while loop in Python.   ....

2. The break statement breaks the loops one by one.   ....

3. The continue is a keyword in Python which is used for bringing the program control out of the loop.   ....

4. A single break statement will skip the current iteration of loops.   ....

5. The switch statement is the looping statement.   ....

C. Answer the following questions.

1. What are jump statements?

    ....

2. Write the syntax of the 'for loop'.

    ....

3. Demonstrate the use of the while loop using else statement.

    ....

Worksheet

1

Name: ....

Roll No: .... Class: .... Section: ....

Date: ....

FUNCTIONS AND STRING IN PYTHON

Chapter-8

A.   Tick (✓) the correct option.

1.   Which of the following methods add more than one element to the end of the existing list.

a.   remove( )   b.   index( )

c.   count( )   d.   extend( )

2.   Which of the following returns the smallest element from the given list.

a.   extend( )   b.   len(list)

c.   min(list)   d.   max(list)

3.   Which of the following does negative indexing mean?

a. Index of -0 refers to the last elements of the list

b. Index of -1 refers to the last elements of the list

c. Index of -2 refers to the last elements of the list

d. Index of -3 refers to the last elements of the list

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

Hints: Items, Sequential, Index, Traverse

1.   Python uses lists to store the .... order of different kinds of data.

2.   An empty list is a list that does not contain the .... in it.

3.   Various ways to .... a list are indexing, negative indexing and slicing.

4.   Nested list can be traversed by using the .... operator.

C.   Explain the following methods:

1.   sort( )   ....

2.   copy( )   ....

3.   count( )   ....

4.   index( )   ....

Class -8

Grade: ★ ★ ★ ★ ☆

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Worksheet

2

Name: ....

Roll No: .... Class: .... Section: ....

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FUNCTIONS AND STRING IN PYTHON

Chapter-8

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

Hints: input(), String, multiline, traversing, print(), unique

1. A function name should be .... and easy to corelate with the task it will perform.

2. The .... and .... belong to the category of built-in functions.

3. .... may include a letter, number, special characters or a backslash.

4. A .... string in Python begins and ends with either three single quotes or three double quotes.

5. .... means visiting each element and processing it as required by the program.

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

1. We cannot call a function as many times as required. ....

2. User-defined functions are created by the user according to the need of the program. ....

3. Function blocks begin with the keyword followed by the function name and parentheses. ....

4. We cannot create our own functions in Python. ....

5. Strings can be created by enclosing characters inside single or double brackets ....

C. Answer the following questions.

1. What is the difference between built-in functions and user-defined functions?

   ....

2. Write two ways to traverse a string.

   ....

Class -8

Grade: ⭐ ⭐ ⭐ ⭐ ☆

Teacher's Signature: ....

Worksheet

1

Name: ....

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LIST IN PYTHON

Chapter-9

A. Tick (✓) the correct option.

1. Which of the following methods add more than one element to the end of the existing list.

   a. remove( )   b. index( )

   c. count( )   d. extend( )

2. Which of the following returns the smallest element from the given list.

   a. extend( )   b. len(list)

   c. min(list)   d. max(list)

3. Which of the following does negative indexing mean?

   a. Index of -0 refers to the last elements of the list

   b. Index of -1 refers to the last elements of the list

   c. Index of -2 refers to the last elements of the list

   d. Index of -3 refers to the last elements of the list

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

Hints: Items, Sequential, Index, Traverse

1. Python uses lists to store the .... order of different kinds of data.

2. An empty list is a list that does not contain the .... in it.

3. Various ways to .... a list are indexing, negative indexing and slicing.

4. Nested list can be traversed by using the .... operator.

C. Explain the following methods:

1. sort( )   ....

2. copy( )   ....

3. count( )   ....

4. index( )   ....

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Worksheet

2

Name: ....

Roll No: .... Class: .... Section: ....

Date: ....

LIST IN PYTHON

Chapter-9

Class -8

A. What will be the output of the following programs?

1.
```
list1=[15, 25, 33, 45, 55]
list1[1]=0
list1[3]=24
print(list1[:])
```

2.
```
list1=[11, 23, 40, 52, 72]
list1.append(21)
print(list1)
```

3.
```
list1=[21, 33, 49, 52, 99]
list2=[11, 23, 44, 74]
print(len(list1))
print(max(list2))
print(min(list1))
```

4.
```
list1=[12, 24, 47, 69, 85]
list1.insert(1, 302)
print(list1)
```

B. Answer the following questions:

1. What is the purpose of using clear() and count() methods?

....

2. Differentiate between Repeating lists and Comparing lists.

....

C. Competency-based/Application-based question:

Aman has created a project in which he has created a list of all the names of students who are willing to go to the college trip but he is unable to change the names of some students. What can he use to change the elements of a list?

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Worksheet

1

DOMAINS OF AI

Chapter-10

Class -8

A.   Tick (✓) the correct option.

1.   Which of the following technology will be used to track player movements in cricket?
   a.   NLP
   b.   Machine Learning
   c.   Computer Vision
   d.   None of these

2.   Humans spend a large amount of time and effort to analyse and filter data, but AI systems can manage and organise huge volumes of data in .... time.
   a.   Less
   b.   More
   b.   Equal
   d.   None of these

3.   Which of the following domains of AI is used by a self-driving car?
   a.   Big Data
   b.   Computer Vision
   c.   Natural Language Processing
   d.   None of these

4.   Which of the following have the tendency to get bored while performing repetitive tasks?
   a.   Humans
   b.   AI System
   c.   Both (i) & (ii)
   d.   None of these

B.   Define the following.

1.   Artificial Intelligence ....

2.   Big Data ....

3.   Computer Vision ....

4.   Natural Language Processing ....

C.   Answer the following questions.

1.   Write any two advantages of AI.

....

2.   How is Big Data used in AI?

....

Grade: ☆ ☆ ☆ ☆ ☆

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Worksheet

2

DOMAINS OF AI

Chapter-10

A. Fill in the blanks.

1. AI enabled .... can explore in space, go underwater, help in digging and mining tasks.

2. Humans spend a large amount of time and effort to .... and filter data, but AI systems can manage and organise huge volumes of data in much less time.

3. Human intelligence is not .... proof, but AI systems are.

4. The speed at which humans take decisions is much .... than AI systems.

5. Self-driving cars use .... to examine their surroundings and plan its path.

B. State whether these statements are true or false.

1. Computer Vision is also used for security and surveillance. ....

2. Using data from many sources, AI can build a store house of knowledge .... that ultimately leads to accurate predictions about a consumer.

3. AI's ability to work so well with data analytics is because of its use of NLP. ....

4. Big Data is a subfield of AI which helps in communication between .... human and computer in natural language.

5. NLP checks the sender of the email and categorises the mails as .... spam or junk.

C. Assertion and reasoning based question.

1. Assertion (A): AI enabled machines/systems can explore in space, go underwater, help in digging and mining tasks.

2. Reason (R): The tasks that are considered dangerous for human beings can be easily handled by using AI enabled machines.

   a. Both A and R are correct and R is the correct explanation of A.

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

   c. A is correct but R is not correct.

   d. A is not correct but R is correct.

Grade: ☆ ☆ ☆ ☆ ☆

Teacher's Signature: ....

Worksheet

1

Name: ....

Roll No: .... Class: .... Section: ....

Date: ....

DEVELOPMENTS USING AI

Chapter-11

A. Tick (✓) the correct option.

1. Which of the following refers to the use of technology to provide better services to the residents?

   a. Traffic management ☐   b. Smart city ☐

   b. Automated transportation ☐   d. None of these ☐

2. Which of the following will ensure that there are fewer accidents?

   a. Robotics Process Automation ☐   b. Facial recognition ☐

   b. Automated transportation ☐   d. None of these ☐

3. Which of the following have a smart system which gives alerts on traffic?

   a. Smart highway ☐   b. Automated transportation ☐

   b. Smart city ☐   d. Both a. and b. ☐

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

Hints: Social media, First, Boost, Smart city

1. The main idea behind .... is reduced waste and inconvenience.

2. AI has a great potential to .... an individual's economic health.

3. The .... stage of AI involved expert systems such as chatbots like Eliza and IBM Watson.

4. .... intelligence platform with data from social media can predict potential activities that can affect safety.
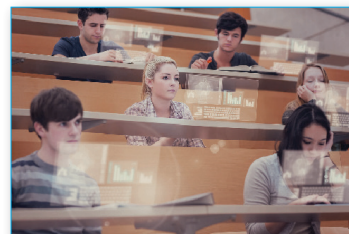
C. Name the following:

....

Grade: ★ ★ ★ ★ ☆

Teacher's Signature: ....

Class -8

Worksheet 2

Name: ....

Roll No: .... Class: .... Section: ....

Date: ....

DEVELOPMENTS USING AI

Chapter-11

A. Find the words from the puzzle give below:

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

B. Answer the following questions:

1. Explain the stages of Artificial General Intelligence.

   ....

2. Explain any three future aspects of AI.

   ....

3. State the use of AI in smart highways.

   ....

C. Competency-based/Application-based question.

Raj describes that there is a technology that has already beaten doctors in detecting fatal diseases like breast cancer. What kind of AI technology is Raj referring to?

....

Grade: ⭐ ⭐ ⭐ ⭐ ☆

Teacher's Signature: ....

Class -8