

SECTION A [30 MARKS]
ANSWER ALL QUESTIONS

Question 1

a) **Direction: For each question, there are FOUR responses: A, B, C and D. Choose the corresponding letter of your response and CIRCLE it neatly. NO score will be awarded if you circle more than one.** [20]

i. Which of the following are the multimedia features to enhance presentation?

- A Chart, WordArt, Text
- B Image, Audio, Video
- C Table, Shape, SmartArt
- D Animation, Transition, Motion Path

ii. Video making skill is one of the important skills in the digital world. Where can you apply these skills?

- A Blogging
- B Film making
- C App development
- D Creating presentation

iii. Which of the following best describes a regularly updated website, typically run by an individual or a group, and written in an informal or conversational style?

- A Blog
- B EMIS
- C News Portal
- D Citizen Service Portal

iv. Your classmate has started using Facebook recently. Which of the following would you suggest your classmate to maintain a positive online identity?

- A Share unverified information or fake news.
- B Share personal information with strangers.
- C Use privacy setting to control who sees your posts.
- D Engage in cyberbullying, trolling, or posting hateful comments.

- v. Study the given lines of code and identify the class name.

Line	Code
1	<code>class Mobile:</code>
2	<code> def __init__(self, brand, model):</code>
3	<code> self.brand = brand</code>
4	<code> self.model = model</code>

- A Class
- B Brand
- C Mobile
- D `__init__`

- vi. What is the function of `input()` in the code given below?

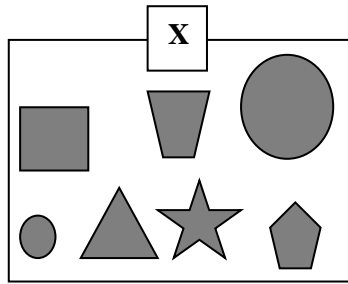
Line	Code
1	<code>snake.length = 2</code>
2	<code>height=int(input("Enter the giraffes height: "))</code>
3	<code>giraffe.height = height</code>

- A Print the responses.
- B Convert integer into string.
- C Convert string into integer.
- D Accept responses from the users.

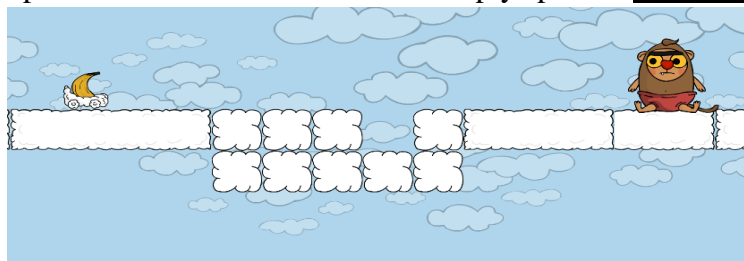
- vii. In which of the following real-life scenarios is AI commonly applied?

- A Painting, Dancing, Playing.
- B Plumbing, Building, Cooking.
- C Counselling, Decision making, Facilitating.
- D Web searching, Face recognition, Virtual assistants.

- viii. Which of the following reasons explain why the given diagram(X) below is considered as a **set** in the python programming?



- I. It includes elements with varying sizes and shapes.
 II. It has a collection of unordered items.
 III. It does not have duplicate items.
 IV. It has a collection of shapes.
- A I and III
 B II and IV
 C II and III
 D III and IV
- ix. Which of the following best describe the similarities between neural networks and the human brain?
- A They both comprise basic units that accept several inputs and generate one output.
 B They are both conscious and self-aware.
 C They both are made of biological cells.
 D They are both computer models.
- x. In the diagram given, the `clouds` lists represent a rectangular grid of clouds. A python expression to create a cloud in the empty space is _____.



- A `clouds[0][3]`
 B `cloud[0][3]`
 C `clouds[0][3] = Cloud()`
 D `cloud[0][3] = Cloud()`

b) Complete the following statements with the most appropriate word. [5]

i.	Jigme is creating, editing, and collaboratively working on a presentation with his friends online. He is using Google _____ for the presentation.	
ii.	The services that make it easier for citizen to access government services, reducing the need for physical visits to government offices is _____.	
iii.	The history of any social media posts you make, websites you visit, information you share online contributes to your digital _____.	
iv.	The objective of the generator is to produce data that can fool the _____ into thinking it is real.	
v.	If a key is not found in the dictionary, the 'not in' operator will return _____.	

c) State whether the following statements are TRUE or FALSE in the space provided. [5]

	Statements	True/False
i.	The term used to describe the process of copying video files from one device to another is called recording.	
ii.	Improve writing skills, develop digital literacy skills, build a little fame for yourself are some advantages of blogging.	
iii.	If you do not maintain positive digital footprint, some risks could be damaged reputation, privacy concerns, cyberbullying, legal issues, and impact on relationships.	
iv.	Reinforcement learning is the type of machine learning where agent learns by interacting with its environment through trial and error.	
v.	The code <code>'temp_flamingo = flamingos[1]'</code> assigns the variable <code>'temp_flamingo'</code> to <code>'flamingos[0]'</code> in the list.	

SECTION B [50 MARKS]
ATTEMPT ALL THE QUESTIONS

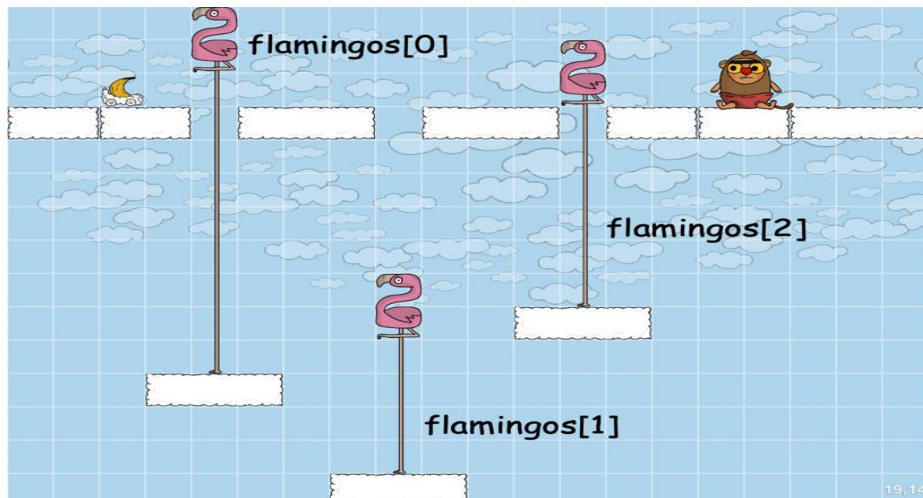
Question 2

a) Why do you use hyperlinks in presentations? Mention any two reasons. [1]

b) In which video making process the applications like CapCut, OpenShot and Adobe Premiere Pro are used? [1]

c) Name any two AI language applications you can apply in your daily life. [1]

d) Analyze the lines of code used to swap the flamingos. Identify the correct indexes of the flamingos and fill in the space provided. [1]



Line	Code
1	temp_flamingo = flamingos[0]
2	flamingos[0] = flamingos[_____]
3	flamingos[2] = flamingos[1]
4	flamingos[_____] = temp_flamingo

- e) List two services your family can avail from the G2C- Citizen Service Portal and the purpose of availing it. [2]

- f) List some practices you should maintain to be a good blogger. [2]

- g) There are different types of information. Some are safe to share online and some are not. [2]

Differentiate between private and personal information with an example each.

Question 3

- a) Ap Dorji wants to register his newborn baby. What G2C service would you suggest him for the registration? [1]

- b) How is Vlog different from Blog? [1]

- c) Differentiate between 10-20-30 rule and PechaKucha 20x20 design principle of PowerPoint Presentation? [2]

- d) Design a python program that takes input from the user, the first name and the second name. Then print the full name by concatenating these strings with proper spacing for the output. [2]

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e) Study the scenario given below and answer the question.

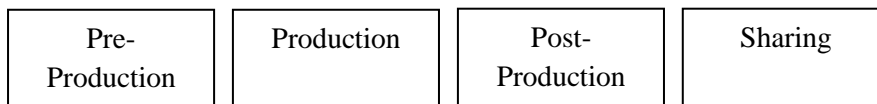
[2]

Tashi, a young student from Bumthang, loved sharing his photos of school, friends and festivals online. One day, his teacher explained about digital footprint and shared how every post leaves a trace. Realizing this, Tashi decided to be mindful and started sharing thoughtfully, understanding the impact of his digital presence. Tashi also educated his friends, highlighting the importance of privacy and caution online.

Do you think Tashi had made the right decision? Justify your answer with **TWO** points.

f) What activities are done in each stage of video making process?

[2]



Question 4

a) Debug and rewrite the correct lines of code.

i.

Line	Code
1	<code>colour = Input(Enter your favourite colour)</code>

[1]

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ii.

Line	Code
1	<code>for car is cars:</code>
2	<code>car.speed= 40</code>

[1]

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iii.

Line	Code
1	<code>fruits ('apple','cherry','mango','papaya')</code>
2	<code>print(vegetables)</code>

[1]

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iv.

Line	Code
1	<code>Class Drill:</code>
2	<code>def __init__()</code>
3	<code>self.x = 5</code>
4	<code>self.y = 10</code>

[1]

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b) Would you like to use an AI to create images? Why? [2]

Question 5

a) Study the code given below to open the gates and answer the following questions.

Line	Code
1	for gate in gates:
2	password=""
3	for c in gate.code:
4	password = password + c + c
5	
6	gate.open(password)

i. Explain which part of the code will iterate each letter of the gate's code. [2]

ii. Is the code line 6: `gate.open(password)` necessary? Why? [1]

iii. If the initial password is "ring". What will be the new password? [1]

- b) For a science exam, you need to learn about the water cycle. Design **TWO** effective AI **prompts** for this scenario. [2]

Question 6

- a)
- i. Suggest another way to execute the given code with same result using **for** loop. [2]

Line	Code
1	baskets[0].balloon_colors.add("yellow")
2	baskets[0].balloon_colors.add("green")
3	baskets[1].balloon_colors.add("yellow")
4	baskets[1].balloon_colors.add("green")
5	baskets[2].balloon_colors.add("yellow")
6	baskets[2].balloon_colors.add("green")

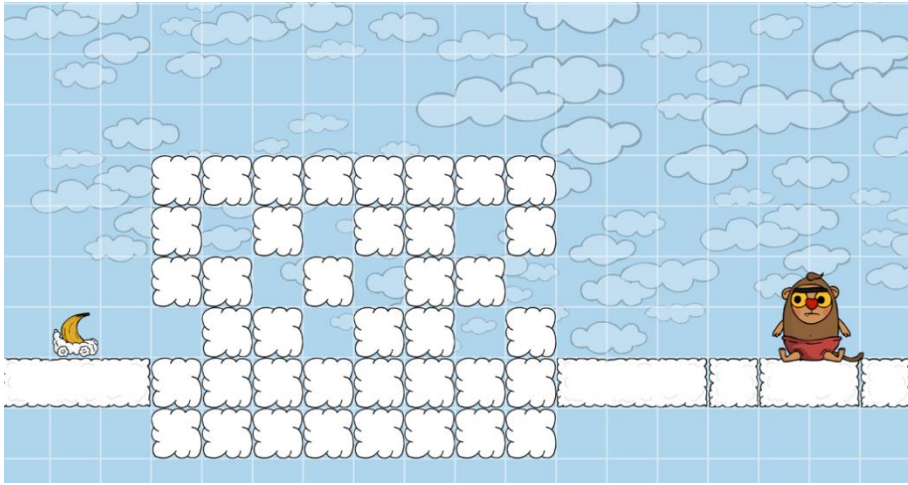
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- ii. Rewrite the following statement by changing only the underlined words. [1]

A dictionary is a collection of pairs of data called strings and integers. It is written with curly brackets {}.

- b) Use the parts of code from the square brackets[] and write the code for the given figure correctly. (commas are used to separate the characters, it is not the part of code.) [2]

[for, in, clouds, range, (8), :, [3], [i], =, i, None]



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- c) Critical thinking is important in AI interactions. Do you agree? Justify with a point. [1]

Question 7

Study the algorithm given below that represents the procedure to calculate the area of a rectangle with side length =10 and width = 5.

Steps	Algorithm
Step 1	START
Step 2	Read/assign the value of length and width
Step 3	Calculate and store the value of area in the variable named <code>area</code> .
Step 4	Display/print the area of rectangle.
Step 5	END/STOP

a) Create a flowchart using the above algorithm.

[3]

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b) Write a python code for the above algorithm. [3]

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Question 8

a) The output of the code given below is [2]
{“English”, “Dzongkha”, “Science”}. Do you agree? Give reason.

Line	Code
1	subjects={"English", "Dzongkha", "Math", "Science"}
2	subjects.pop()
3	print(subjects)

b) Modify the code given in **Question 8 a** to get the output : [2]
{“English”, “Dzongkha”, “Math”, “Science”, “ICT”}

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- c) Fill in the table by comparing and contrasting between tuples and lists in python. [2]
Mention a point each for difference and similarity.

	Tuples	Lists	
Difference			
Similarity			

