

# MATH LOVE INSTITUTE

Annual Examination 2025-26

Class: VIII | Subject: Computer Science

Time: 2 Hours | Maximum Marks: 50

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<b>Student Name:</b>	_____
<b>Roll Number:</b>	_____
<b>Date:</b>	_____

## General Instructions:

1. All questions are compulsory.
2. The question paper is divided into 5 sections: A, B, C, D, and E.
3. Section A: Multiple Choice Questions (1 mark each) - 10 marks
4. Section B: Fill in the Blanks / True or False (1 mark each) - 10 marks
5. Section C: Short Answer Questions (2 marks each) - 12 marks
6. Section D: Long Answer Questions (3 marks each) - 9 marks
7. Section E: Practical/Programming Questions (3 marks each) - 9 marks
8. Write neatly and legibly. Marks may be deducted for poor handwriting.

**SECTION A: Multiple Choice Questions (1 Mark Each) - 10 Marks**

**Q1.** Which of the following is a free online tool for 3D modeling and circuit simulation? **[1]**

- (a) Microsoft Word
- (b) Tinkercad
- (c) Google Docs
- (d) PowerPoint

**Q2.** Which domain of AI deals with machines that can see and interpret visual information? **[1]**

- (a) Natural Language Processing
- (b) Computer Vision
- (c) Robotics
- (d) Expert Systems

**Q3.** Which type of data can be counted or measured and expressed in numbers? **[1]**

- (a) Qualitative Data
- (b) Quantitative Data
- (c) Nominal Data
- (d) Ordinal Data

**Q4.** In Tinkercad Circuits, which component is used to control the flow of electric current? **[1]**

- (a) LED
- (b) Battery
- (c) Switch
- (d) Wire

**Q5.** Which HTML tag is used to create a hyperlink? **[1]**

- (a) <link>
- (b) <a>
- (c) <href>
- (d) <url>

- Q6.** Which HTML tag is used to embed a video in a webpage? **[1]**
- (a) <media>
  - (b) <video>
  - (c) <movie>
  - (d) <embed>
- Q7.** Which loop in Python is used when the number of iterations is known? **[1]**
- (a) while loop
  - (b) for loop
  - (c) do-while loop
  - (d) infinite loop
- Q8.** What is the output of: range(5)? **[1]**
- (a) 0, 1, 2, 3, 4
  - (b) 1, 2, 3, 4, 5
  - (c) 0, 1, 2, 3, 4, 5
  - (d) 1, 2, 3, 4
- Q9.** Which keyword is used to define a function in Python? **[1]**
- (a) function
  - (b) def
  - (c) define
  - (d) func
- Q10.** Which Python module is commonly used to create games? **[1]**
- (a) tkinter
  - (b) pygame
  - (c) numpy
  - (d) pandas

**SECTION B: Fill in the Blanks / True or False (1 Mark Each) - 10 Marks**

- Q11.** \_\_\_\_\_ is the process of creating a 3D object by adding material layer by layer. **[1]**

- Q12.** The life cycle of Data Science includes: Data Collection, Data Cleaning, \_\_\_\_\_, Modeling, and Deployment. [1]
- Q13.** In Tinkercad Circuits, \_\_\_\_\_ is used to simulate electronic components and test circuits without physical hardware. [1]
- Q14.** The HTML tag \_\_\_\_\_ is used to create an inline frame (iframe) to embed another webpage. [1]
- Q15.** The attribute \_\_\_\_\_ in the <audio> tag enables playback controls for the audio player. [1]
- Q16.** True or False: A while loop continues to execute as long as the condition is True. [1]
- Q17.** True or False: The break statement is used to skip the current iteration and continue with the next one. [1]
- Q18.** A function that calls itself is known as a \_\_\_\_\_ function. [1]
- Q19.** The \_\_\_\_\_ statement is used to exit from a loop prematurely. [1]
- Q20.** True or False: Discrete quantitative data can take any value within a range. [1]

<b>SECTION C: Short Answer Questions (2 Marks Each) - 12 Marks</b>
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- Q21.** What is 3D Printing? Name any two applications of 3D printing. [2]
- Q22.** Define Data Science. What are the two main types of data? [2]
- Q23.** What is the difference between discrete and continuous quantitative data? Give one example of each. [2]
- Q24.** Write the HTML code to create a hyperlink that opens "www.google.com" in a new tab with link text "Visit Google". [2]

**Q25.** What is the difference between for loop and while loop in Python? Give one example where each would be preferred. **[2]**

**Q26.** What are function parameters? Explain with an example. **[2]**

**SECTION D: Long Answer Questions (3 Marks Each) - 9 Marks**

**Q27.** Explain the five main stages of the Data Science Life Cycle with brief description of each stage. **[3]**

**Q28.** Write the HTML code to embed an audio file "song.mp3" with playback controls and autoplay enabled. Also embed a video file "movie.mp4" with width 400px and height 300px with controls. **[3]**

**Q29.** What is an infinite loop? Write a Python program that demonstrates both: (i) an intentional infinite loop with a condition to break, and (ii) how to avoid accidental infinite loops. **[3]**

**SECTION E: Practical/Programming Questions (3 Marks Each) - 9 Marks**

**Q30.** Write a Python program to print the multiplication table of a number entered by the user using a for loop. **[3]**

**Q31.** Write a Python program to find the sum of all even numbers between 1 to 50 using a while loop. **[3]**

**Q32.** Write a Python function called calculate\_area() that takes length and breadth as parameters and returns the area of a rectangle. Call this function with values 10 and 5, and print the result. **[3]**

# DETAILED ANSWERS WITH MARKING SCHEME

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## SECTION A ANSWERS: Multiple Choice Questions

### Q1. Answer: (b) Tinkercad

**Explanation:** Tinkercad is a free online tool developed by Autodesk that allows users to create 3D models, design electronic circuits, and write code. It's widely used in education for learning 3D design and electronics.

*Marking: 1 mark for correct option (b)*

### Q2. Answer: (b) Computer Vision

**Explanation:** Computer Vision is a domain of AI that enables machines to interpret and understand visual information from the world, such as images and videos. Examples include facial recognition, object detection, and self-driving cars.

*Marking: 1 mark for correct option (b)*

### Q3. Answer: (b) Quantitative Data

**Explanation:** Quantitative data is numerical data that can be counted or measured. It answers questions like "how many" or "how much". Examples include height, weight, temperature, number of students, etc.

*Marking: 1 mark for correct option (b)*

#### **Q4. Answer: (c) Switch**

**Explanation:** A switch is an electrical component that controls the flow of electric current in a circuit. It can open (break) or close (complete) the circuit, allowing or stopping the flow of electricity.

*Marking: 1 mark for correct option (c)*

#### **Q5. Answer: (b) <a>**

**Explanation:** The anchor tag <a> is used to create hyperlinks in HTML. The href attribute specifies the destination URL. Example: <a href="url">Link Text</a>

*Marking: 1 mark for correct option (b)*

#### **Q6. Answer: (b) <video>**

**Explanation:** The <video> tag is used to embed video content in HTML5. It supports various attributes like controls, autoplay, width, height, etc. Example: <video src="movie.mp4" controls></video>

*Marking: 1 mark for correct option (b)*

#### **Q7. Answer: (b) for loop**

**Explanation:** A for loop is used when the number of iterations is known in advance. It's ideal for iterating over sequences like lists, tuples, strings, or using the range() function.

*Marking: 1 mark for correct option (b)*

**Q8. Answer: (a) 0, 1, 2, 3, 4**

**Explanation:** The range(5) function generates numbers from 0 to 4 (5 numbers total). range() starts from 0 by default and stops before the specified number. So range(5) produces: 0, 1, 2, 3, 4

*Marking: 1 mark for correct option (a)*

**Q9. Answer: (b) def**

**Explanation:** The 'def' keyword is used to define a function in Python. Syntax: def function\_name(parameters): followed by the function body.

*Marking: 1 mark for correct option (b)*

**Q10. Answer: (b) pygame**

**Explanation:** Pygame is a popular Python library/module specifically designed for creating games. It provides functionality for graphics, sound, collision detection, and game development.

*Marking: 1 mark for correct option (b)*

## SECTION B ANSWERS: Fill in the Blanks / True or False

**Q11. Answer: 3D Printing**

**Explanation:** 3D Printing (also called Additive Manufacturing) is the process of creating three-dimensional objects by adding material layer by layer based on a

digital model.

*Marking: 1 mark for correct answer "3D Printing"*

### Q12. Answer: Data Analysis / Exploratory Data Analysis (EDA)

**Explanation:** The Data Science Life Cycle includes: 1) Data Collection, 2) Data Cleaning, 3) Data Analysis/EDA, 4) Modeling, 5) Deployment. Data Analysis helps understand patterns and insights in the data.

*Marking: 1 mark for "Data Analysis" or "Exploratory Data Analysis" or "EDA"*

### Q13. Answer: Virtual Simulation / Circuit Simulation

**Explanation:** Tinkercad Circuits provides a virtual simulation environment where users can design and test electronic circuits without needing physical components. The "Start Simulation" button allows testing the circuit behavior.

*Marking: 1 mark for "Virtual Simulation" or "Circuit Simulation" or "Simulation"*

### Q14. Answer: <iframe>

**Explanation:** The <iframe> (inline frame) tag is used to embed another HTML document within the current page. Example: <iframe src="page.html"></iframe>

*Marking: 1 mark for "<iframe>"*

### Q15. Answer: controls

**Explanation:** The "controls" attribute in the <audio> tag displays playback controls like play, pause, and volume. Example: <audio src="song.mp3" controls></audio>

*Marking: 1 mark for "controls"*

#### **Q16. Answer: True**

**Explanation:** A while loop continues executing its body as long as the specified condition evaluates to True. When the condition becomes False, the loop terminates.

*Marking: 1 mark for "True"*

#### **Q17. Answer: False**

**Explanation:** FALSE. The continue statement skips the current iteration and moves to the next iteration. The break statement is used to exit the loop completely.

*Marking: 1 mark for "False"*

#### **Q18. Answer: recursive**

**Explanation:** A recursive function is a function that calls itself during its execution. Recursion is useful for solving problems that can be broken down into similar subproblems.

*Marking: 1 mark for "recursive"*

#### **Q19. Answer: break**

**Explanation:** The break statement is used to exit a loop prematurely, even if the loop condition is still True. It immediately terminates the loop execution.

*Marking: 1 mark for "break"*

### **Q20. Answer: False**

**Explanation:** FALSE. Discrete quantitative data can only take specific, countable values (like number of students: 1, 2, 3...). Continuous quantitative data can take any value within a range (like height: 5.5 feet, 5.75 feet, etc.).

*Marking: 1 mark for "False"*

## **SECTION C ANSWERS: Short Answer Questions**

### **Q21. Answer: 3D Printing and Applications**

**3D Printing:** 3D Printing is an additive manufacturing process where a three-dimensional object is created by adding material layer by layer based on a digital 3D model.

#### **Two Applications of 3D Printing:**

1. **Medical Field:** Creating prosthetic limbs, dental implants, customized hearing aids, and even printing human tissues and organs for transplants.
2. **Manufacturing and Prototyping:** Rapid prototyping of products, creating spare parts for machines, manufacturing custom tools, and producing architectural models.

**Other Applications:** Education (creating educational models), Fashion (custom jewelry and accessories), Automotive (spare parts), Aerospace (lightweight components), Food industry (printing chocolates and pasta).

*Marking: 1 mark for definition of 3D printing, 0.5 marks for each correct application (2 marks total)*

## Q22. Answer: Data Science and Types of Data

**Data Science:** Data Science is an interdisciplinary field that uses scientific methods, algorithms, processes, and systems to extract knowledge and insights from structured and unstructured data. It combines statistics, mathematics, programming, and domain expertise to analyze and interpret complex data.

### Two Main Types of Data:

Type	Description	Examples
<b>1. Quantitative Data</b>	Numerical data that can be counted or measured	Height (5.5 feet), Age (15 years), Temperature (25°C), Number of students (50)
<b>2. Qualitative Data</b>	Descriptive data that expresses qualities or characteristics	Color (Red, Blue), Gender (Male, Female), Opinion (Good, Bad), Names

*Marking: 1 mark for definition of Data Science, 0.5 marks for each type of data (2 marks total)*

## Q23. Answer: Discrete vs Continuous Quantitative Data

Aspect	Discrete Data	Continuous Data
<b>Definition</b>	Data that can only take specific, countable values	Data that can take any value within a range
<b>Values</b>	Whole numbers, distinct values	Any value including decimals
<b>Measurement</b>	Can be counted	Can be measured
<b>Example</b>	Number of students in a class (30, 35, 40)	Height of students (5.5 ft, 5.75 ft)

	Number of books (5, 10, 15)	Weight (55.5 kg, 60.3 kg)
	Number of cars (1, 2, 3)	Temperature (25.5°C, 26.8°C)

Marking: 1 mark for explaining the difference, 0.5 marks for each example (2 marks total)

#### Q24. Answer: HTML Hyperlink Code

```
<a href="https://www.google.com" target="_blank">Visit  
Google</a>
```

#### Explanation of Components:

- **<a>** - Anchor tag to create hyperlink
- **href="https://www.google.com"** - Specifies the destination URL
- **target="\_blank"** - Opens link in a new tab/window
- **Visit Google** - Link text that users will see and click
- **</a>** - Closing anchor tag

**Note:** The target="\_blank" attribute is essential to open the link in a new tab as required in the question.

Marking: 1 mark for correct anchor tag with href, 0.5 marks for target="\_blank", 0.5 marks for proper syntax (2 marks total)

#### Q25. Answer: For Loop vs While Loop

Aspect	For Loop	While Loop
<b>When to Use</b>	When number of iterations is known	When number of iterations is unknown

<b>Initialization</b>	Automatic (in the loop statement)	Manual (before the loop)
<b>Update</b>	Automatic	Manual (inside loop body)
<b>Best For</b>	Iterating over sequences (lists, ranges)	Condition-based repetition

### When to prefer For Loop:

- Printing numbers 1 to 10
- Iterating through a list of items
- Printing multiplication tables

### When to prefer While Loop:

- Reading user input until they enter "exit"
- Checking a condition that may change unpredictably
- Menu-driven programs

*Marking: 1 mark for explaining the difference, 1 mark for appropriate examples (2 marks total)*

## Q26. Answer: Function Parameters

**Function Parameters:** Parameters are variables listed in the function definition that receive values when the function is called. They act as placeholders for the actual values (arguments) passed to the function.

### Example:

```
def greet(name, age): # name and age are parameters
    print("Hello", name)
    print("You are", age, "years old")
```

```
# Calling the function  
greet("Raj", 14) # "Raj" and 14 are arguments
```

Output:

```
Hello Raj
```

```
You are 14 years old
```

### Explanation:

- **Parameters:** name and age (defined in function)
- **Arguments:** "Raj" and 14 (actual values passed)
- Parameters make functions flexible and reusable
- Same function can work with different values

*Marking: 1 mark for definition, 1 mark for correct example with explanation (2 marks total)*

## SECTION D ANSWERS: Long Answer Questions

### Q27. Answer: Five Stages of Data Science Life Cycle

The Data Science Life Cycle consists of five main stages:

#### 1. Data Collection:

- Gathering raw data from various sources
- Sources: Databases, APIs, web scraping, surveys, sensors, social media
- Goal: Obtain relevant data for analysis
- Example: Collecting customer purchase data from an e-commerce website

#### 2. Data Cleaning/Preparation:

- Removing errors, duplicates, and inconsistencies
- Handling missing values
- Converting data into proper format

- Goal: Prepare clean, accurate data for analysis
- Example: Removing duplicate customer records, filling missing phone numbers

### **3. Data Analysis/Exploration (EDA - Exploratory Data Analysis):**

- Exploring and understanding the data
- Finding patterns, trends, and relationships
- Using statistical methods and visualization
- Goal: Extract meaningful insights
- Example: Analyzing which products sell most during festivals

### **4. Modeling:**

- Building mathematical/statistical models
- Using machine learning algorithms
- Training models to make predictions
- Goal: Create predictive models
- Example: Building a model to predict customer buying behavior

### **5. Deployment and Communication:**

- Implementing the model in real-world applications
- Communicating findings to stakeholders
- Creating dashboards and reports
- Goal: Put insights into action
- Example: Deploying recommendation system on e-commerce website

*Marking: 0.6 marks for each stage with brief description (5 × 0.6 = 3 marks)*

### **Q28. Answer: HTML Code for Audio and Video**

```
<!DOCTYPE html>
<html>
<head>
```

```
<title>Audio and Video Example</title>
</head>
<body>
  <h2>Audio Player</h2>

  <!-- Audio with controls and autoplay -->
  <audio src="song.mp3" controls autoplay>
    Your browser does not support the audio
    element.
  </audio>

  <hr>

  <h2>Video Player</h2>

  <!-- Video with specified dimensions and controls -
  ->
  <video src="movie.mp4" width="400" height="300"
  controls>
    Your browser does not support the video
    element.
  </video>

</body>
</html>
```

### Explanation of Attributes:

Attribute	Purpose
<b>src</b>	Specifies the path/URL of the media file
<b>controls</b>	Displays playback controls (play, pause, volume)

<b>autoplay</b>	Automatically starts playing when page loads
<b>width</b>	Sets the width of video player (in pixels)
<b>height</b>	Sets the height of video player (in pixels)

#### Other useful attributes:

- **loop:** Repeats the media continuously
- **muted:** Starts with sound muted
- **poster:** (for video) Shows an image before video plays

*Marking: 1.5 marks for correct audio code with required attributes, 1.5 marks for correct video code with dimensions and controls (3 marks total)*

### Q29. Answer: Infinite Loop in Python

**Infinite Loop:** An infinite loop is a loop that runs indefinitely because its terminating condition never becomes False. It continues executing until the program is forcefully stopped or a break statement is encountered.

#### (i) Intentional Infinite Loop with Break Condition:

```
# Program demonstrating controlled infinite loop
print("==== Menu-Driven Calculator ====")

while True: # Intentional infinite loop
    print("\nOperations:")
    print("1. Add")
    print("2. Subtract")
    print("3. Multiply")
    print("4. Exit")

    choice = input("Enter your choice (1-4): ")
```

```

if choice == '4':
    print("Thank you! Exiting...")
    break # Exit condition to stop infinite loop

if choice in ['1', '2', '3']:
    num1 = float(input("Enter first number: "))
    num2 = float(input("Enter second number: "))

    if choice == '1':
        print("Result:", num1 + num2)
    elif choice == '2':
        print("Result:", num1 - num2)
    elif choice == '3':
        print("Result:", num1 * num2)
else:
    print("Invalid choice! Please try again.")

```

## (ii) How to Avoid Accidental Infinite Loops:

```

# WRONG WAY - Accidental Infinite Loop (DON'T DO THIS)
count = 1
while count <= 5:
    print(count)
    # Forgot to increment count - INFINITE LOOP!

# CORRECT WAY - Proper Loop
count = 1
while count <= 5:
    print(count)
    count = count + 1 # Update the counter -
IMPORTANT!

```

```
# OUTPUT: 1 2 3 4 5 (then stops)
```

### Tips to Avoid Infinite Loops:

1. **Always update loop control variable:** Ensure the variable in condition gets modified
2. **Check the condition logic:** Make sure condition will eventually become False
3. **Use break statements:** Provide exit conditions in intentional infinite loops
4. **Test with small values:** Before running with large data, test with small values
5. **Add safety counters:** Include maximum iteration limits as backup

### Example with Safety Counter:

```
max_attempts = 3
attempt = 0

while attempt < max_attempts:
    password = input("Enter password: ")
    if password == "secret123":
        print("Access granted!")
        break
    else:
        attempt += 1
        print(f"Wrong password. {max_attempts -
attempt} attempts left.")

if attempt == max_attempts:
    print("Account locked due to too many failed
attempts.")
```

Marking: 1 mark for definition and intentional infinite loop with break, 1 mark for demonstrating wrong vs correct loop, 1 mark for prevention tips (3 marks total)

## SECTION E ANSWERS: Practical/Programming Questions

### Q30. Answer: Multiplication Table Program

```
# Python Program to Print Multiplication Table

# Taking input from user
num = int(input("Enter a number: "))

print(f"\n===== Multiplication Table of {num} =====\n")

# Using for loop to print table
for i in range(1, 11):
    result = num * i
    print(f"{num} × {i} = {result}")

print("\n=====")

# Alternative: Using range with start, stop, step
print(f"\n===== Extended Table (1 to 15) =====\n")
for i in range(1, 16):
    print(f"{num} × {i:2d} = {num * i}")
```

### Sample Output:

```
Enter a number: 7

===== Multiplication Table of 7 =====
```

```
7 × 1 = 7
7 × 2 = 14
7 × 3 = 21
7 × 4 = 28
7 × 5 = 35
7 × 6 = 42
7 × 7 = 49
7 × 8 = 56
7 × 9 = 63
7 × 10 = 70
```

```
=====
```

### Explanation:

- **Line 1:** Takes integer input from user
- **Line 2:** Prints formatted heading
- **Line 3:** for loop runs from 1 to 10 (range(1, 11) means 1 to 10)
- **Line 4:** Calculates multiplication result
- **Line 5:** Prints formatted output using f-string

*Marking: 1 mark for input and loop structure, 1 mark for correct calculation, 1 mark for proper output format (3 marks total)*

### Q31. Answer: Sum of Even Numbers using While Loop

```
# Python Program to Find Sum of Even Numbers from 1 to
50

# Initialize variables
num = 2 # Start with first even number
sum_even = 0 # Variable to store sum
```

```

print("Even numbers from 1 to 50:")

# While loop to iterate and add even numbers
while num <= 50:
    print(num, end=" ") # Print even number
    sum_even = sum_even + num # Add to sum
    num = num + 2 # Move to next even number
(increment by 2)

# Display the result
print("\n")
print("=" * 40)
print(f"Sum of all even numbers (1 to 50): {sum_even}")
print("=" * 40)

# Verification using formula: Sum = n(n+1) where n = 25
print(f"\nVerification: 25 × 26 = {25 * 26}")
print("(There are 25 even numbers from 1 to 50)")

```

### Output:

```

Even numbers from 1 to 50:
2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40
42 44 46 48 50

=====
Sum of all even numbers (1 to 50): 650
=====

Verification: 25 × 26 = 650
(There are 25 even numbers from 1 to 50)

```

### Detailed Explanation:

1. **Initialization:** Start with num = 2 (first even number) and sum\_even = 0
2. **While Loop Condition:** Continue while num <= 50
3. **Loop Body:**
  - Print current even number
  - Add it to sum\_even
  - Increment num by 2 to get next even number
4. **Result:** After loop ends, sum\_even contains total: 2+4+6+...+50 = 650

### Alternative Method (using modulo):

```
# Alternative approach checking if number is even
num = 1
sum_even = 0

while num <= 50:
    if num % 2 == 0: # Check if number is even
        sum_even += num
    num += 1 # Increment by 1 each time

print("Sum of even numbers:", sum_even)
```

*Marking: 1 mark for proper while loop with condition, 1 mark for correct even number logic and sum calculation, 1 mark for displaying output correctly (3 marks total)*

### Q32. Answer: Function to Calculate Rectangle Area

```
# Python Program with Function to Calculate Rectangle
Area

def calculate_area(length, breadth):
    """
```

```
Function to calculate area of rectangle

Parameters:
length - length of the rectangle
breadth - breadth/width of the rectangle

Returns:
area - calculated area (length × breadth)
"""
area = length * breadth
return area

# Main program starts here
print("==== Rectangle Area Calculator ==== \n")

# Calling function with values 10 and 5
result = calculate_area(10, 5)

print(f"Length: 10 units")
print(f"Breadth: 5 units")
print(f"Area of Rectangle: {result} square units")

print("\n" + "=" * 40)

# Additional examples with different values
print("\nMore Examples:")
print("-" * 40)

area1 = calculate_area(15, 8)
print(f"Rectangle 1: 15 × 8 = {area1} square units")

area2 = calculate_area(20, 12)
```

```

print(f"Rectangle 2: 20 × 12 = {area2} square units")

area3 = calculate_area(7.5, 4.2)
print(f"Rectangle 3: 7.5 × 4.2 = {area3} square units")

print("=" * 40)

```

### Output:

```

===== Rectangle Area Calculator =====

Length: 10 units
Breadth: 5 units
Area of Rectangle: 50 square units

=====

More Examples:
-----
Rectangle 1: 15 × 8 = 120 square units
Rectangle 2: 20 × 12 = 240 square units
Rectangle 3: 7.5 × 4.2 = 31.5 square units
=====

```

### Program Explanation:

Component	Explanation
<b>Function Definition</b>	def calculate_area(length, breadth): defines the function with two parameters
<b>Docstring</b>	Triple-quoted string explaining what the function does
<b>Calculation</b>	area = length * breadth calculates the result

<b>Return Statement</b>	return area sends the calculated value back to caller
<b>Function Call</b>	result = calculate_area(10, 5) calls function with arguments
<b>Print Result</b>	Displays the returned value

**Key Concepts Demonstrated:**

- ✓ Function definition with `def` keyword
- ✓ Two parameters (length, breadth)
- ✓ Calculation inside function body
- ✓ Return statement to send value back
- ✓ Function call with specific values (10, 5)
- ✓ Storing returned value in variable
- ✓ Printing the result
- ✓ Function reusability (called multiple times with different values)

*Marking: 1 mark for correct function definition with parameters, 1 mark for calculation and return statement, 1 mark for calling function with (10,5) and printing result (3 marks total)*

## Marking Summary

Section	Question Type	Total Marks
Section A	Multiple Choice Questions (10 × 1)	10 marks
Section B	Fill in the Blanks / True-False (10 × 1)	10 marks

Section C	Short Answer Questions (6 × 2)	12 marks
Section D	Long Answer Questions (3 × 3)	9 marks
Section E	Practical/Programming (3 × 3)	9 marks
TOTAL		50 marks

## MATH LOVE INSTITUTE

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This paper covers: 3D Modelling & Printing | AI & Data Science | Tinkercad Circuits | HTML5 Audio/Video | Python  
Loops & Functions | Gamification

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