



**Under the patronage of His Excellency
the Minister of Education
Mr. Mohamed Abdel Latif**

**and the directives of
Dr. Hala Abdel Salam
Head of the Central Department of General
Education**

**Evaluations and Assignments
Information and Communication Technology
for the Third Preparatory Grade
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Third Preparatory Grade – Weekly Evaluation and Homework
Week (3) Unit 1: Artificial Intelligence and Programming Languages
Lesson 2: (Artificial Intelligence Algorithms)

Weekly Evaluation

First Test

Answer the following questions:

- 1- Define "algorithm" and briefly explain the purpose of using sorting algorithms in programming.
- 2- Write Python code for a sequential algorithm that takes a username as input and prints it preceded by the word "Hello".

Put (√) in front of the correct statement or (x) in front of the incorrect statement

The oval shape in a flowchart represents input and output operations. ()

Second Test

Answer the following questions:

- 1- Compare traditional algorithms and artificial intelligence algorithms in terms of their mode of operation (fixed steps versus learning from data).
- 2- Explain the concept of a conditional algorithm using an "IF" statement to determine whether a number is positive or negative.

Place a checkmark (√) next to the correct statement or an (×) next to the incorrect statement.

In a flowchart, the rectangle represents arithmetic operations or fixed steps. ()

Third Test

Answer the following questions:

1. What is meant by the concept of "Machine Learning"? Provide an illustrative example.
2. Explain how to implement a loop algorithm to print the word "Hello" five times in Python.

Place a checkmark (√) next to the correct statement or an (×) next to the incorrect statement.



An algorithm that relies on examining list elements to locate a specific element is a sorting algorithm. ()

Class Evaluation

Answer the following questions:

1. List the characteristics of conditional algorithms and provide an example.
2. Explain the difference between search algorithms and sorting algorithms.

Homework

Answer the following questions:

1. What is the primary function of the "diamond" shape in flowcharts?
2. Why is using a loop better than manually writing commands multiple times?

Choose the correct answer from the following options.

What is the correct output of the following code?

```
num = 4
```

```
if num % 2 == 0:
```

```
    print("Even")
```

```
else:
```

```
    print("Odd")
```

- a. Odd.
- b. Even.
- c. Program error.
- d. It prints nothing.