

Given the scatter plot below. Suppose, you want to predict the class of new data point  $x=1$  and  $y=3$  using 3-NN. In which class this data point belong to? (The new data point is big circle with green color)



Training class 0

Training class 1

Test pred 0

Test pred 1

انقر فوق "حفظ وإرسال" للحفاظ والإرسال. وانقر فوق "حفظ كل الإجابات" لحفظ كل الإجابات.

?What will be the output of the following Python code

```
print (r "\nhello")
```

a new line and hello

error

the letter r and then hello

nhello\

انقر فوق "حفظ وإرسال" للحفاظ والإرسال. وانقر فوق "حفظ كل الإجابات" لحفظ كل الإجابات.

focuses on the development of computer programs that can access data and use it \_\_\_\_\_  
learn for themselves

- Data Mining
- Machine Learning
- Probabilistic Modelling
- Big Data Analytics

ips occur on average in 1/100,000 sentences. Maggie Louise Gal (aka "ML" Gal) has developed a machine

- Unsupervised Learning
- Supervised Learning
- Probabilistic modelling
- Reinforcement learning

**QUESTION 3**

Identify which ML technique adapts a policy for mapping from states actions that tells you what to do in a given state

- Supervised Learning
- Semi supervised learning
- Reinforcement learning
- UnSupervised Learning

**QUESTION 4**

0.125

0.59

السؤال 12

Python uses \_\_\_\_\_ to indicate blocks

- Newline
- semicolon
- Square brackets
- indentation

السؤال 13

Which machine learning technique learns a function  $f(x)$  to predict  $y$  given  $x$

- Supervised Learning
- Probabilistic modelling
- Reinforcement learning
- UnSupervised Learning

Identify the output for the following python code

```
import numpy as np
```

```
((np.eye(4
```

```
([.array([1., 1., 1., 1.], [1., 1., 1., 1.], [1., 1., 1., 1  
([.array([1., 0., 0., 0.], [0., 1., 0., 0.], [0., 0., 1., 0.], [0., 0., 0., 1
```

```
array([0, 1, 2, 3, 4, 5, 6, 7, 8, 1  
([9
```

```
([array([0, 2, 4, 6, 8
```



سؤال 15

Whether a customer will buy a boat. Given "If the customer is older than 45, and divorced, then they want to buy a boat". Which of the below claims are correct

The Rule seems too complex and overfitting occurs

The Rule seems too simple and underfitting occurs

The rule generalises to new data

The rule is able to capture all the aspects of and variability in the data

السؤال 16

the missing code for choosing the value of K and calculating the error rate


`error_rate`  
Will take some time #

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OSHIBA

F9 F10 F11 F12 PRTSC PAUSE

Which machine learning technique learns a function  $f(x)$  to predict  $y$  given  $x$

Supervised Learning 

Probabilistic modelling

Reinforcement learning

UnSupervised Learning