

## Ouestion 1

Not yet answered

Marked out of 0.10

Put in historical order key events of AI development.

OpenAI introduce GPT-3 framework.

AlphaGo beat Lee Sedol in a five-game match.

AlexNet by Alex Krizhevsky won LSVRC-2012 competitions.

Deep Blue won match with Garry Kasparov.

First AI winter and popularisation of Lisp, key programming language for expert systems.

Alan Turing proposed the imitation game as a test of a machine's ability to exhibit intelligent behaviour.

Geoffrey Hinton applied the backpropagation algorithm to multi-layer neural networks.

Ian Goodfellow introduce Generative Adversarial Network framework.

Frank Rosenblatt constructed perceptron, electronical device which try simulate neurons processes.

Question 2			
Not yet answered			
Marked out of 0.10			

Why numpy is better than list

Select one:

- Memory efficiency
- Perfomance efficiency
- O Built in linear algebra operations
- All above

Question 3	
Not yet answered	
Marked out of 0.10	

How to get dimensions of numpy array

Select one:

- O len(array)
- o np.shape(array)
- array.shape
- o array.shape()

## Question 4

Not yet answered

Marked out of 0.10

Given an numpy **array** with shape (2, 5). What is shape of **array**.reshape(-1)

Select one:

- O Raises an exception
- $\circ$  (2, 5)
- O (5, 2)
- **(10,)**



Question **5** 

Not yet answered

Marked out of 0.10

What should be result of two matrix summation:

mat1 = np.array([[1, 2], [3, 4]])

mat2 = np.array([[10], [5]])

mat1 + mat2

## Select one:

- O Raises an exception
- array([[11, 12], [8, 9]])
- o array([[11, 7], [13, 9]])

Question 6	
Not yet answered	
Marked out of 0.10	

Select valid code for column extraction as a pandas. Series from DataFame:

Select one or more:

- ✓ df.age
- ✓ df["age"]
- $\Box$  df[["age"]]



Question 7	
Not yet answered	
Marked out of 0.10	

By default, the mean() function includes Nan values when calculating the mean.

Select one:

O True

False

Question 8

Not yet answered

Marked out of 0.10

What information does the describe function display?

Select one or more:

- count
- ✓ mean
- standard deviation
- ✓ minimum value
- 25th quartile
- ✓ 50th quartile
- ▼ 75th quartile
- maximum value

Question 9	
Not yet answered	
Marked out of 0.10	

What is possible solutions to handling missing data?

Select one or more:

Fill with mean

Fill with random values

Predict values based on another columns

Drop corresponding rows

Drop corresponding columns

Fill with mode

Question 10

Not yet answered

Marked out of 0.10

Refresh statistic course. If dependent variable completely explainable by independent variable  $r^2$  value tend to:

Select one:



0.5

 $\bigcirc$  0

