

Course outline

How does an NPTEL online course work?

Assignment 0

Lecture Material

Week 1

Week 2

Week 3

Week 4

 Lecture 19 : 1D Maps

 Lecture 20 : Probability density functions and sampling

 Lecture 21 : Monte-carlo simulations: Darts and Buffon's needle

 Lecture 22 : 1D Random walks

 Lecture 23 : 2D Random walks

 Quiz : Assignment 4

 Feedback Form

Week 5

Week 6

Week 7

Week 8

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Text Transcripts

Assignment 4

The due date for submitting this assignment has passed.

Due on 2021-02-17, 23:59 IST.

As per our records you have not submitted this assignment.

1) In python, what will be the output of the command 'computer' != "COMPUTER"?

1 point

- a. 0
 b. 1
 c. True
 d. False

No, the answer is incorrect.

Score: 0

Accepted Answers:

c. True

 2) In python, the command `s = np.random.normal(p, q, r)`, draws random samples from a normal distribution, where `p` and `q` denotes _____ and _____, respectively.

1 point

- a. Standard deviation and Mean of the distribution
 b. Mean and Standard deviation of the distribution
 c. Mean and size of the distribution
 d. Size and Standard deviation of the distribution

No, the answer is incorrect.

Score: 0

Accepted Answers:

b. Mean and Standard deviation of the distribution

 3) In python the function `matplotlib.pyplot.hist` is related to

1 point

- a. Drawing samples from a random normal distribution
 b. Drawing samples from a uniform distribution
 c. Computing and drawing the histogram of an input value
 d. None of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

c. Computing and drawing the histogram of an input value

 4) For the function `matplotlib.pyplot.hist` in python, the input parameter `bins` can be `int` or `sequence` or `str`. However, unequally spaced bins are supported if `bins` is a _____.

1 point

- a. integer
 b. sequence
 c. string
 d. None of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

b. sequence

 5) In python, the function `random.uniform(low=0, high=1, size=None)` draws samples from a uniform distribution, which

1 point

- a. Includes low, but excludes high
 b. Includes high, but excludes low
 c. Includes both high and low
 d. excludes both high and low

No, the answer is incorrect.

Score: 0

Accepted Answers:

a. Includes low, but excludes high

 6) In python, `numpy.random.pareto` draws samples from a _____ distribution with specified shape.

1 point

- a. Pareto
 b. Lomax
 c. Pareto II
 d. Unifom

No, the answer is incorrect.

Score: 0

Accepted Answers:

b. Lomax

c. Pareto II

7) The classical Pareto distribution can be obtained from the Lomax distribution by adding _____ and multiplying by the scale parameter.

1 point

- a. 1
 b. -1
 c. 2
 d. -2

No, the answer is incorrect.

Score: 0

Accepted Answers:

a. 1

 8) To get the cumulative integrated value of $y(x)$ using composite trapezoidal rule in python which function is used?

1 point

- a. `numpy.mod()`
 b. `numpy.cumsum()`
 c. `scipy.integrate.cumtrapz()`
 d. None of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

 c. `scipy.integrate.cumtrapz()`

 9) Which function in python integrate $y(x)$ along a given axis using the composite trapezoidal rule?

1 point

- a. `scipy.integrate.cumtrapz()`
 b. `numpy.cumsum()`
 c. `numpy.trapz()`
 d. `numpy.mod()`

No, the answer is incorrect.

Score: 0

Accepted Answers:

 c. `numpy.trapz()`

 10) The function `numpy.random.standard_cauchy`, draws samples from a standard Cauchy distribution with mode = _____.

1 point

- a. 0
 b. 0.5
 c. 0.75
 d. 1

No, the answer is incorrect.

Score: 0

Accepted Answers:

a. 0