1. 当使用 np.genfromtxt 库函数读取 CSV 文件时，我们

1. When we use np.genfromtxt library function for reading a CSV file in, we are

• 需要在读取文件之前显式打开文件。 required to open the file explicitly before reading the file.

• 不需要在读取文件之前打开文件，因为 np.genfromtxt 函数将在读取之前打开文件。 not required to open the file before reading the file, because np.genfromtxt function will open the file before reading.

• 不需要在读取文件之前打开文件，因为 CSV 文件就像键盘文件一样一直处于打开状态。 not required to open the file before reading the file, because CSV file are open all the time, just like the keyboard file.

• 不需要在读取文件之前打开文件，因为 CSV 文件始终存储在主内存中。 not required to open the file before reading the file, because CSV files are always stored in main memory.

2. 以下哪些语言特性会影响程序执行的效率？（多选题）

2. Which of the following language features impact the efficiency of program execution? Select all that apply.

• 语言控制结构 Language control structure

• 语言简单性/正交性 Language simplicity/orthogonality

• 语言语法设计 Language syntax design

• 类型检查 Type checking

• 指针的使用 Use of pointer

3. 哪些语句在语法图中表示时没有循环？（多选题）

3. Which statements do not have a loop when expressed in a syntax graph? Select all that apply.

• if-then-else

• for-loop

• switch

• while-loop

4. 在 Python 中表示单字符数据的最佳方法是什么？

4. What is the best way of representing data of single characters in Python?

• 使用整数类型 use int type

• 使用浮点数类型 use float type

• 使用字符串类型 use string type

• 使用字符类型 use char type

5. 给定三个变量及其值，如下所示：x = {1, 2.2, 3, "c", "car"} y = {"c", "car", 1, 3, 2.2, "car"} z = {3, "c", 1, "bike", 1, 2.2, "car"} 哪些是相等的？

5. You are given three variables and their values as follow: x = {1, 2.2, 3, "c", "car"} y = {"c", "car", 1, 3, 2.2, "car"} z = {3, "c", 1, "bike", 1, 2.2, "car"} Which of them are equal?

• x == y

• x == z

• y == z

• x == y and y == z

6. 如果我们按如下所示定义一个 Python 的 sort 函数：def sort(\*numbers): 这里的星号“\*”意味着什么？

6. If we define a sort function in Python as follows: def sort(\*numbers): What does the star-symbol "\*" mean here?

• 这意味着numbers是一个指针变量。 It means numbers is a pointer variable.

• 这意味着numbers必须使用值传递。 It means numbers must use pass by value.

• 这意味着numbers必须使用引用传递。 It means numbers must use pass by reference.

• 这意味着sort是一个可变参数函数。 It means sort is a variadic function.

7. 给定以下函数（称为阿克曼函数）。有哪些大小为 m (m < n) 问题可用于计算大小为 n 的问题？（多选题）

7. You are given the following function, called Ackermann function. What are the size-m problems (m < n) that can be used for calculating the size-n problem? Select all that apply.

• A(s, t)

• A(s-1, 1)

• A(s, t-1)

• t + 1

• A(s-1, A(s, t-1))

8. 给定以下代码段：class patient: roomNo = 0 doctors = [] def \_\_init\_\_(self, name, roomNo, doctors): self.name = name self.roomNo = roomNo self.doctors = doctors def addDocToPatient(self, doctorName): self.doctors.append(doctor(doctorName)) 代码是否具有构造函数和析构函数？

8. You are given the following piece of code: class patient: roomNo = 0 doctors = [] def \_\_init\_\_(self, name, roomNo, doctors): self.name = name self.roomNo = roomNo self.doctors = doctors def addDocToPatient(self, doctorName): self.doctors.append(doctor(doctorName)) Does the code have a constructor and a destructor?

• 具有构造函数和析构函数。 It has a constructor and a destructor.

• 具有构造函数，但没有析构函数。 It has a constructor but no destructor.

• 具有析构函数，但没有构造函数。 It has a destructor but no constructor.

• 既没有构造函数，也没有析构函数。 It has neither constructor nor destructor.

9. Python 类最多可以继承多少个类？

9. How many classes can a Python class inherit at most?

• 0

• 仅一个 one only

• 两个或更少 two or less

• 一个或更多 one or more

10. 当编写包含多个类的大型程序时，我们

10. When we write a large program with multiple classes, we

• 必须将所有类放在一个代码文件中。 must put all classes in a single code file.

• 必须将每个类放在一个代码文件中。 must put each class in a single code file.

• 可以将每个类放在单独的代码文件中。 can put each class in a separate code file.

• 可以将两个类放在两个单独的代码文件中，当且仅当它们没有父-子关系时。 can put two classes in two separate code files if and only they do not have parent-child relation.