OOPS - 1

Which of the following is an important difference between object-oriented programming and procedural programming?

Choose any one

- Object-oriented programming is only possible in Java and not in other languages such as C++.
- Procedural programming treats a program as a sequence of actions or commands, while object-oriented programming looks at a program as a group of interacting entities named objects with related data and behavior. ✓ correct answer
- Procedural programming is slower and less efficient than object-oriented programming.
- Object-oriented programming is not related to real life.

OOPS - 2

What is an object? How is an object different from a class?

Choose any one

- An object is a kind of class that does not contain any behavior (methods).
- A class is an instance of an object. One object can be used to create many classes.
- Objects are used in object-oriented programming and classes are used in class-oriented programming.
- An object is an entity that encapsulates related data and behavior, while a class is the blueprint for a type of objects. ✓ correct answer

OOPS - 3

Imagine that you are creating a class called **Calculator**. A **Calculator** object could be used to program a simple mathematical calculator device like the ones you have used in math classes in school.

Which of the following is an state for a Calculator object: - (State Yes / No)

Your answers

1.) Its name, who owns it, its age, its size, weight in pounds.

No ✓

2.) The model number and company that manufactures it

No ✓

3.) The number that has just been computed

Yes ✓

OOPS - 4

Imagine that you are creating a class called **Calculator**. A **Calculator** object could be used to program a simple mathematical calculator device like the ones you have used in math classes in school.

What behavior might a Calculator object have? : - (State Yes / No)

Your answers

1.) To create a new calculator and use it to solve a math problem

No ✓

2.) Methods to add, subtract, multiply, divide

Yes ✓

3.) Things you can do with the Calculator, such as lift it up, put it down, turn it on and off, put batteries in it

No ✓

OOPS - 4

Imagine that you are creating a class called **Calculator**. A **Calculator** object could be used to program a simple mathematical calculator device like the ones you have used in math classes in school.

What behavior might a Calculator object have? : - (State Yes / No)

Your answers

2.) Methods to add, subtract, multiply, divide

Yes ✓

3.) Things you can do with the Calculator, such as lift it up, put it down, turn it on and off, put batteries in it

No ✓

4.) All of the buttons the calculator would have on it, like a + button, a * button, and a 7 button

No ✓

OOPS - 5

Which of the following is true about Abstraction: - (State Yes / No)

Your answers

No ✓

2.) A keyword that optimizes programs that do not use classes or objects.

No ✓

3.) The ability to focus on a problem at a high level without worrying about the minor details.

Yes ✓

4.) When things are confusing and vague rather than simple and understandable.

OOPS - 5

Which of the following is true about Abstraction: - (State Yes / No)

Your answers

2.) A keyword that optimizes programs that do not use classes or objects.

No ✓

3.) The ability to focus on a problem at a high level without worrying about the minor details.

Yes ✓

4.) When things are confusing and vague rather than simple and understandable.

No ✓

OOPS - 6

How do objects provide abstraction? (State Yes / No)

Your answers

1.) Public fields provide abstraction because they let the client directly view an object's data.

No ✓

2.) Objects provide abstraction through the .provideAbstraction() method.

No ✓

3.) By giving us more powerful pieces of data that have sophisticated behavior without having to manage and manipulate the data directly.

Yes ✓

OOPS - 6

How do objects provide abstraction? (State Yes / No)

Your answers

2.) Objects provide abstraction through the .provideAbstraction() method.

No ✓

3.) By giving us more powerful pieces of data that have sophisticated behavior without having to manage and manipulate the data directly.

Yes ✓

4.) Objects provide abstraction when they declare a lot of useful data inside them.

No ✓

OOPS - 7

Write the name of Programming approach in front of their definition:

- Monolithic
- Modular
- Object-Oriented

Your answers

1.) Programs consist of multiple modules and in turn, each module has a set of functions of related types.

Modular ✓

2.) Program has flat physical structure consisting of only global data and sequential code.

Monolithic ✓

3.) Organized around objects rather than "actions" and data rather than logic.

Object-Oriented ✓