Any is a determiner. It suggests an indefinite amount or number.

Have you got any rice?
Is there any water in the bottle?

Note that any is used when it is not important to say how much / many we are thinking about.

Any, not any and no

Any is often used in questions and negative clauses. Note that when used alone any does not have a negative meaning. It is negative only when it is used with not.

She is unhappy because she hasn't got any children. (NOT She is unhappy because she has any children.)

No means the same as not any, but is more emphatic.

She has got no children. (More emphatic than ‘She hasn’t got any children.’)

Notes
We cannot begin a sentence with not any. We use ‘no’ instead.

No child is ugly. (NOT Not any child is ugly.)

Any and a/an

When used with uncountable and plural nouns, any has the same kind of meaning as the indefinite article (a/an) has with singular countable nouns.

Compare:

Has she got a car? (A with a singular noun)
Has she got any cars? (Any with a plural noun)

Any in affirmative clauses

Any can mean ‘it doesn’t matter who/which/what’. With this meaning, it is common in affirmative clauses as well as questions and negatives.

Ask any doctor – they will all tell you that smoking is bad for health. (It doesn’t matter which doctor)
Any and any of
Before a noun with a determiner (articles, demonstratives and possessives), we use any of. If there is no determiner we use any.

I didn’t read any books.
I didn’t read any of those books. (NOT I didn’t read any those books.)

She hasn’t got any friends.
She doesn’t visit any of her friends.

Notes
When any of is followed by a plural noun, the verb can be singular or plural. Some people, however, think that a plural verb is incorrect.