

UGC NET 2018 :

Software coupling involves dependencies among pieces of software called modules. Which of the following are correct statements with respect to module coupling?

P: Common coupling occurs when two modules share the same global data.

Q: Control coupling occurs when modules share a composite data structure and use only parts of it.

R: Content coupling occurs when one module modifies or relies on the internal working of another module.

Choose the correct answer from the code given below: Code:

- (a) Q and R only
- (b) P and R only
- (c) All of P, Q and R
- (d) P and Q only

Solution:

Coupling is the degree of interdependence between software modules.

Types of coupling:

Content coupling :

One module uses the code of another module.

Common coupling :

Several modules have access to the same global data.

External coupling :

Two modules share an externally imposed data format, communication protocol, or device interface.

Control coupling :

One module controlling the flow of another, by passing it information on what to do.

Stamp coupling (data-structured coupling) :

Modules share a composite data structure and use only parts of it.

Data coupling :

Modules share data.

Subclass coupling :

Describes the relationship between a child and its parent. The child is connected to its parent, but the parent is not connected to the child.

Temporal coupling :

It is when two actions are bundled together into one module just because they happen to occur at the same time.

Dynamic coupling :

The goal of this type of coupling is to provide a run-time evaluation of a software system.

Semantic coupling :

This kind of coupling considers the conceptual similarities between software entities.

Logical coupling :

Logical coupling (or evolutionary coupling or change coupling) exploits the release history of a software system to find change patterns among modules or classes.

Ans. (B)

References:

<https://en.wikipedia.org/>

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