# DECISION COVERAGE TESTING

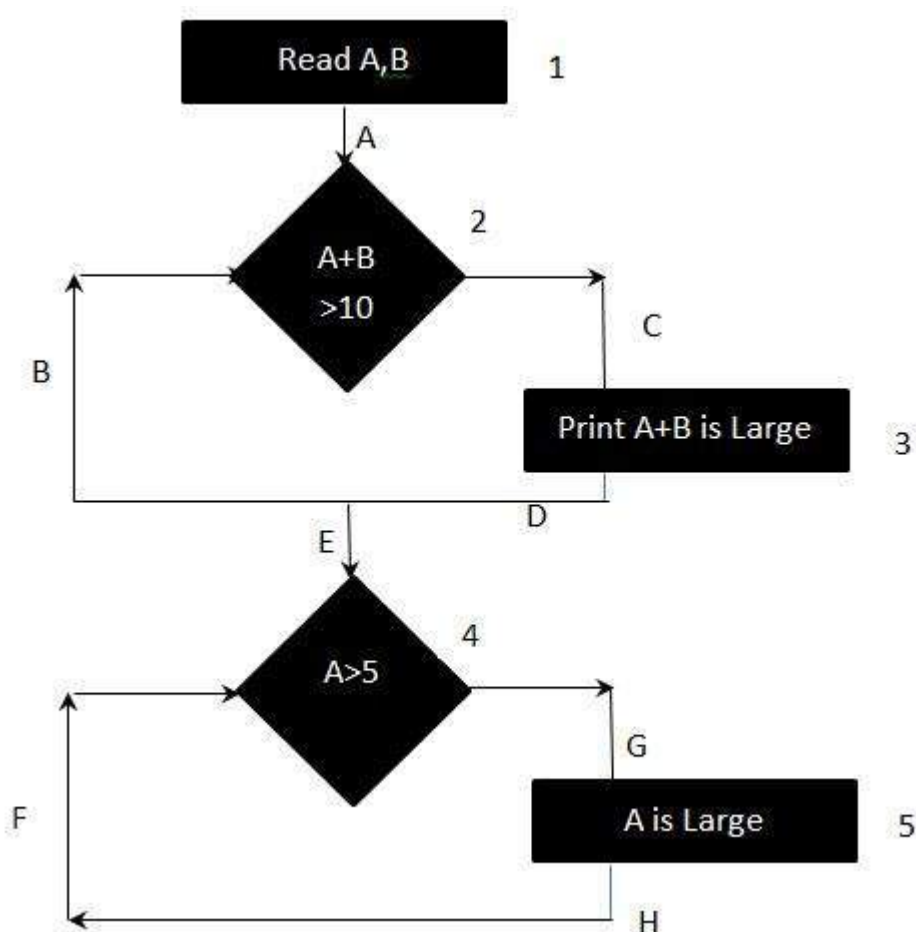## What is Decision Coverage Testing?

Decision coverage or Branch coverage is a testing method, which aims to ensure that each one of the possible branch from each decision point is executed at least once and thereby ensuring that all reachable code is executed.

That is, every decision is taken each way, true and false. It helps in validating all the branches in the code making sure that no branch leads to abnormal behavior of the application.

## Example:

```
Read A
Read B
IF A+B > 10 THEN
   Print "A+B is Large"
ENDIF
If A > 5 THEN
   Print "A Large"
ENDIF
```

The above logic can be represented by a flowchart as:



## Result :

```
To calculate Branch  Coverage, one has to find out the minimum number of paths which
will ensure that all the edges are covered. In this case there is no single path which
will ensure coverage of  all the edges at once. The aim is to cover all possible
true/false decisions.
```

```
(1) 1A-2C-3D-E-4G-5H
(2) 1A-2B-E-4F
Hence Decision or Branch Coverage is 2.
```