2.7 Decisions

As stated previously **if** is a keyword, and is used to implement a decision, which comes from OOB and can be expressed with the following OOC as shown below in Fig. 2.

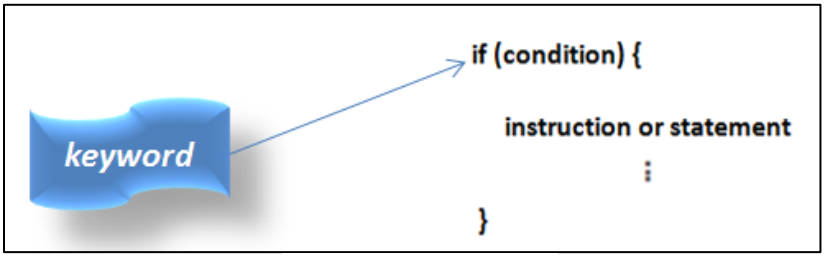

Fig. 2

From OOB the operon can be represented as an if statement meaning instruction S will be executed if condition B is true, otherwise S will not be executed **(if B then S)**. By focusing on the E. coli bacterium, which regulates its own synthesis. The boolean value of condition B can be classified by the state of the operator, which is true if **Operator_X** gene is free or false if **Operator_X** gene is blocked by the repressor. The if statement can be simulated once the operon is blocked after activation of the basic instruction. The synthesis of structure gene S will realize the instruction S and the synthesis of **Regulator_X** gene will block the synthesis of operon L14.

The **Operator_X** gene is the condition and can be either true or false and the instruction or statement is the structure gene S and so the if statement can be classified as the following:

If the condition is true the statements will be executed inside a block **{…}**, but if the condition is false the statements won't be executed meaning **if B then S**.

2.8 Self-Check Questions for the Decision Sub-Section

1. What are the two Operator_X conditions?
2. In programming what is a decision known as?
3. In order to simulate a decision, the operon must in what mode?
4. What blocks the Operator_X?