Test plan and results:

We have made test programs for 3 types of errors: syntax errors, contextual errors and semantic errors.

The package ‘test’ contains JUnit for syntax and contextual errors.

The ‘sample’ folders contains test files for all 3 types of errors.

Syntax error testing is performed by test.SyntaxTest.java. It uses 8 correct sample programs that should get parsed without errors and 6 faulty programs that contain different syntax errors.

Contextual error testing is performed by test.ContextualTest.java. It uses 2 correct sample programs that should get parsed and checked without errors and 6 faulty programs that contain different contextual errors. These include using break/continue statements outside loops, type errors and checking for undeclared variable uses. In addition it checks whether the Checker results in the correct types and offsets of nodes.

Semantic errors must be manually tested by running the programs in generatorTest1.ogt through generatorTest4.ogt. Output of print statements are included as comments after the print statements. These test programs test features as arhythmical/logical expressions, if/else statements, ternary operators, while/for loops and pointers/arrays.