BIRLA INSTITUTE OF TECHNOLOGY & SCIENCE, PILANI
HYDERABAD CAMPUS
SECOND SEMESTER 2020-21

COMPILER CONSTRUCTION (CS F363)
Programming Assignment – 2

LAST DATE: 9/4/2021 **MAX MARKS: 20M**

Requirement for Parser

Phase-2 (Requirement for Parser, Parser Deliverables, Test Suite, How-to-approach Phase-2)
• Requirements Specification:

o Input: Lexer generated tokens
o Output: Parse Tree in the form of any tree traversal or level wise output of the nonterminal from left to right. In case of errors your parser must report the errors and continue parsing.

• Files
o Interface file : parser.h
o Implementation : parser.c

Stage-2 How-to
1. Read the language Specification: the overview, the grammar (natural form) and the tokens to gain an over-all understanding.
2. Apply your understanding to the given examples and work out the details by deriving the program text using the rules given in the grammar.
3. Understand the any type of parser for your grammar.
4. Implement the parser using techniques discussed in the classroom
5. Test the scanner with the test cases.
6. Write a procedure to traverse and print the parse tree or the sequence of tokens from the stack.
7. Write your own test cases and document your code.

Rubric for evaluation

1. Parse table by hand – 5
2. Parsing algorithm and printing the parse tree or stack contents – 5
3. On error the parser must not stop but continue -2.5
4. A few Error handling routines -2.5
5. Viva – 5