**K.S.Institute of Technology, Bangalore** 

**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

**ASSIGNMENT QUESTIONS**

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| **Academic Year** | **2020-21** | | |
| **Batch** | **2018-2022** | | |
| **Year/Semester/section** | **III/VI/A & B** | | |
| **Course Code-Title** | **18CS61-System Software & Compilers** | | |
| **Name of the Instructor** | **Deepa .S.R** | **Dept** | **CSE** |

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| **Assignment No: 2 Total marks:10**  **Date of Issue : 22-6-21 Date of Submission: 1-7-21** | | | | |
| **Sl.No** | **Assignment Questions** | **K**  **Level** | **CO** | **Marks** |
|  | **Construct** a transition diagram along with regular definitions for recognizing unsigned numbers, Relational operators along with code, identifiers and white spaces |  | **2** | 2 |
|  | **a.** **Identify** the FIRST and FOLLOW rules used in predictive parsing technique with examples  b. Given the grammar  S → (L) | a  L → L , S | S   1. Make necessary changes to make it suitable for LL(1) parsing. 2. Construct FIRST and FOLLOW sets. 3. Construct the predictive parsing table. 4. Show the moves made by the predictive parser on the input (a, (a,a))   c. **Make use of** a shift reduce parser for accepting string id1\*id2, considering the grammar E->E+T | T T->T\*F | F F -> id also write the actions and conflicts of shift reduce parser |  | **3** | 6 |
|  | 1. Build a Lexer with symbol table for recognizing parts of speech 2. Build a parser and lexer for recognizing simple sentence. |  | **4** | 2 |

**Course In charge HOD**