

Rajkiya Engineering College | Ambedkar Nagar, UP, India

Department of Information Technology

ASSIGNMENT-1

Course, Branch, Year And Semester: B.Tech, IT, 3rd year, V sem.

Subject Code And Name: KIT-052 Compiler Design

Name of Subject Teacher: Ms. Shweta Tiwari

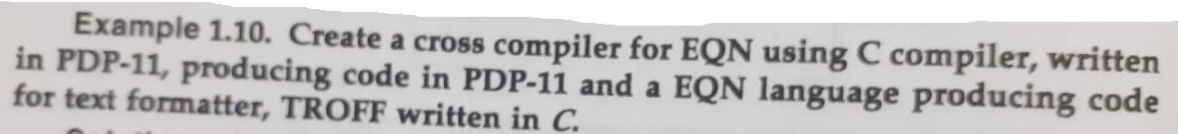
Date of Assignment Given: September 23, 2022

Last Date of Assignment: September 28, 2022

Marks Allotted: 10

Assignment Work:

1. Define the following
 - i) Preprocessor and Assembler
 - ii) Types of Compiler
 - iii) Loader and Linker
 - iv) Grouping of phases into passes
 - v) LEX and YACC Tools
 - vi) BNF And CNF
2. What is a Language Processing System? Explain the phases in detail.
3. What are the different phases of the compiler? Explain the phases in detail. Write down the phases in detail. Write down the output of each phase for the expression $a=(b+c)*(b+c)*2$
4. Explain LEX And YACC Tool with block Diagram and Structure.
5. Create a cross compiler.



Example 1.10. Create a cross compiler for EQN using C compiler, written in PDP-11, producing code in PDP-11 and a EQN language producing code for text formatter, TROFF written in C.

6. Convert Ambiguous Grammar to Unambiguous Grammar. Example.
 $E \rightarrow E+E / E * E$
 $E \rightarrow id$
7. Conversion NFA to DFA for Regular Expression $(a|b)^*abb$ using Thompson's Construction.
8. Conversion from Regular Expression to DFA $a^*b^*a(a|b)^*b^*a$ without construction NFA.

Note:

- Do submit your assignment on A4 size plain preferably.
- Do submit your assignment's soft copy in google classroom on the corresponding assignment tab.