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| **http://10.10.10.2:8080/GIS/image/logo.gif** | **G H Patel College of Engineering & Technology**  **Department of Computer Engineering** |
| **Vision**  To produce globally competitive computer engineers, who are prepared to accept the challenges at professional level, while maintaining the core values. | |
| **Mission**   * To create excellent teaching learning environment. * To mould engineers with a strong foundation of scientific knowledge and engineering concepts. * To enhance the acquired concepts and develop new technology through excellence in research. * To assist nation building and elevating the quality of life of the people through leadership in professionalism, education, research and public services. | |
| **Programme Educational Objectives (PEO)**   * To educate young aspirants with the fundamentals of engineering and knowledge of latest technologies. * To encourage the students to remain updated by pursuing higher degree or certification programs. * To assume management and leadership roles to contribute in socio-economic development of the nation. | |

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**A.Y. 2024-25(ODD), Semester 7**

**Subject Code: 102046704**

**Subject Name: Compiler Design**

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**Name:**

**Enrolment no: Branch:**

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| 1 | a) Write a C program to remove all the comments from the program.  b) Write a C program to recognize identifiers and numbers. |  |  |  |  |
| 2 | Write a C program to generate tokens for a C program. |  |  |  |  |
| 3 | a) To Study about Lexical Analyzer Generator (LEX).  b) Create a Lex program to take input from text file and count no of characters, no. of lines &  no. of words. |  |  |  |  |
| 4 | a) WAP to implement yytext method in a LEX program.  b) WAP to implement ECHO, REJECT functions provided in Lex.  c) WAP to implement BEGIN directive in a LEX program. |  |  |  |  |
| 5 | a) Write a Lex program to count number of vowels and consonants in a given input string.  b) Write a Lex program to print out all numbers from the given file.  c) Write a Lex program to count the number of comment lines in a given C program. |  |  |  |  |
| 6 | a) WAP to implement unput and input.  b) WAP to implement yyterminate, yy\_flush\_bufferin LEX program.  c) WAP to implement yywrap in LEX program.  d) WAP to implement yymore and yyless in LEX program. |  |  |  |  |
| 7 | WAP to Find the “First” set  Input: The string consists of grammar symbols.  Output: The First set for a given string.  Explanation:  The student has to assume a typical grammar. The program when run will ask for the string  to be entered. The program will find the First set of the given string. |  |  |  |  |
| 8 | WAP to Find the “Follow” set.  Input: The string consists of grammar symbols.  Output: The Follow set for a given string.  Explanation: The student has to assume a typical grammar. The program when run will ask  for the string to be entered. The program will find the Follow set of the given string. |  |  |  |  |
| 9 | Construct a recursive descent parser for a given grammar. |  |  |  |  |
| 10 | Write a C program for constructing of LL (1) parsing. |  |  |  |  |
| 11 | Implement a C program to implement operator precedence parsing. |  |  |  |  |
| 12 | Given a parsing table, Parse the given input using Shift Reduce Parser for any unambiguous  grammar. |  |  |  |  |
| 13 | Introduction to YACC and generate calculator program. |  |  |  |  |
| 14 | Generate 3-tuple intermediate code for given infix expression. |  |  |  |  |
| 15 | Extract predecessor and successor from given control flow graph. |  |  |  |  |

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